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## ABSTRACT

Using data from the National Longitudinal Study of the High School Seniors Class of 1972 (NLS) and from High School and Beyond (HS&B), this study documents changes in the academic achievement of high school seniors between 1972-1980. It also identifies the school and student factors related to these changes. Its purpose is to inform policymakers about the sources of current educational problems and to identify educational practices important for educational excellence. The findings indicate declines on all three achievement tests, with the largest declines in vocabulary and reading. Numerous and significant changes were identified in the characteristics of seniors, their homes and families, their schools, and their attitudes and behavior. A "step down" analysis of covariance was used to estimate how these changes separately affected the average score decline. Path analysis was employed to explore differences in the educational processes experienced by 1980 subpopulations with larger score declines and their 1972 counterparts. Results indicate that the changes from 1972 to 1980 at both the school and student level that contributed most to test score decline were: (1) a greater likelihood of being in a general or vocational curriculum rather than an academic one; (2) a drop in the frequency of taking traditional college preparation core courses; (3) a decrease in homework; and (4) increase in student dissatisfaction with the lack of academic emphasis in schools. Findings support the policy recommendations of recent national reports in regard to curriculum, course content, homework and programs for special populations. (BS)

ED 271 517

# Contractor Report

## Factors Associated With Decline of Test Scores of High School Seniors, 1972 to 1980

A Study of Excellence in High School Education:  
Educational Policies, School Quality, and  
Student Outcomes



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**Factors Associated With Decline of Test  
Scores of High School Seniors, 1972 to 1980**

**A Study of Excellence in High School Education:  
Educational Policies, School Quality, and  
Student Outcomes**

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Chapters III and VI were written by Ruth Ekstrom.

Chapter IV was written by Margaret Goertz.

Chapter V was written by Donald Rock. Ruth Ekstrom also contributed to this chapter.

Chapter VII was written primarily by Thomas Hilton. Donald Rock also contributed to this chapter.

Chapter VIII and IX were written by Donald Rock.

Margaret Goertz is the primary author for Chapter X; Rock, Ekstrom, and Hilton also made contributions.

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## EXCELLENCE IN HIGH SCHOOL EDUCATION: CROSS-SECTIONAL STUDY, 1972-1980

### Executive Summary

In 1983, eight major national studies reported on the status of public education in the United States. These reports sounded a common theme: The American educational system is in trouble. The major evidence cited in support of this claim was that academic achievement, as measured by performance on the College Board's Scholastic Aptitude Tests and the National Assessment of Educational Progress, had declined. This situation was attributed to demographic changes, lower standards, lower expectations for students, a less rigorous curriculum, and the poor academic preparation of new teachers. However, there is little systematic research that relates these factors to test score decline.

This study, which was carried out by Educational Testing Service (ETS) under contract to the National Center for Education Statistics (NCES), utilized NLS and HS&B data to document changes in the academic achievement of high school seniors between 1972-1980 and to identify the school and student factors related to these changes. The study findings show that there were significant changes in test scores, in high schools, and in student behavior. They also show that these changes were interrelated.

There were declines on all three achievement tests between 1972 and 1980. The largest declines occurred in vocabulary and reading. The average senior in 1980 (a student at the 50th percentile in 1980 in vocabulary and reading achievement) would rank at about the 41st percentile among the 1972 seniors in both vocabulary and reading. Similarly, a 1980 senior with average mathematics achievement in 1980 would be at the 45th percentile when compared with the 1972 seniors. When these changes are measured in standard deviation units, the declines are .22 for Vocabulary, .21 for Reading, and .14 for Mathematics, indicating a greater decline in verbal than in quantitative skills.

There were also significant changes from 1972-1980 in the characteristics of high school seniors, their homes and families, the schools they attended, and their attitudes and behaviors.

- o Some demographic changes occurred, such as increases in percentages of minority-group students and population shifts from the Northeast to the South.
- o The proportion of students in the academic curriculum declined, as did the number of semesters of social studies, science and foreign language taken, and the amount of homework done.
- o The percentage of schools with a high dropout rate increased. The number of laboratory courses taken by students fell, the proportion of students believing there should have been more

academic emphasis increased, and students had lower opinions of their school's reputation, quality of academic instruction, and physical condition of buildings.

- The parents of the 1980 seniors were better educated and had higher educational aspirations for their children, but provided fewer study aids.
- Students' interest in correcting social and economic inequities declined, while interest in making money and in job success increased. Students became more self-confident between 1972 and 1980 but less sure of their ability to control the course of their own lives.

The impacts of the above changes on test scores were examined. It was found that:

- Changes in student behaviors and in school characteristics played the major roles in test score declines.
- The demographic shifts were a minor factor in test score decline.
- The changes in the home educational support system resisted test score declines.

Changes from 1972 to 1980 at both the school level and student level that seem to have contributed most to the decline were: (1) a greater likelihood of being in the general or vocational curriculum rather than the academic curriculum, (2) a drop in the frequency with which students report taking "traditional" college preparation core courses such as foreign languages, science and/or courses requiring laboratory work, (3) a decrease in the amount of homework done, and (4) an increasing dissatisfaction among the students with the lack of emphasis on academics in the schools.

Taken together, these findings suggest that the major factor contributing to test score decline was a decreased academic emphasis in the educational process. The impact of this shift in emphasis fell primarily on White and on upper and middle class students, however. Federal and state programs designed to strengthen basic skills in reading and mathematics appear to have prevented comparable score declines among low socioeconomic status Blacks in Vocabulary and Reading and to have contributed to the score increase among this same group in Mathematics.

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## CHAPTER I

### INTRODUCTION

The quality and effectiveness of American education has once again become a critical national issue. The National Commission on Excellence in Education (1983), appointed by Secretary of Education T. H. Bell, decries the "rising tide of mediocrity" in public education. The prestigious Twentieth Century Fund (1983) asserts that American public schools are in trouble. The National Task Force on Education for Economic Growth (1983), consisting of forty-one eminent leaders from state government and the corporate world, concludes that declining standards in public schools undermine both this country's efforts to sustain economic recovery and our competitive economic position internationally.

Research on schools tends to echo the message of such commissions, if not the tone. Recent studies of American high schools are premised on the assumption that secondary education is the weakest link in the instructional chain and the one most in need of reform. They argue that the basic structure of the American high school has not changed in nearly a century and no longer serves its purpose well (Sizer, 1983). While our schools have adjusted to a host of new demands in the last twenty-five years, a large gap remains between school achievement and the type of education students need in order to meet the demands of a technological society (Boyer, 1983). Students engage in a relatively narrow range of classroom activities and become more interested in personal and vocational goals and less interested in the intellectual goals of school as they get older (Goodlad, 1983).

Such studies have received and will continue to receive much publicity. Regrettably, the analyses and conclusions rest on relatively small samples of schools and pay scant attention to changing conditions. Does the average high school assign less homework, require fewer course credits for graduation, or permit more off-campus or part-time study than was true ten years ago? To what extent has fiscal retrenchment or school policy altered the quality, size, salary schedules, and degree of turnover among teachers? Commentators have linked the decline in test score performance among students to changing educational standards and criteria for graduation, but little systematic evidence exists to suggest that changes in school organization or curriculum are responsible. These and a host of related questions on the causes and consequences of educational effectiveness demand scrutiny.

Without doubt, the longitudinal studies initiated by the National Center for Education Statistics are the best resource for a systematic examination of both the current state of secondary schooling and the degree of change since the early 1970s. They offer an opportunity to conduct research pertinent to policy recommendations regarding effective reform. No other national data set on administrative practices and policy, on curriculum and requirements, and on student outcomes exist for an assessment of the changing nature of secondary education in this country. These data promise to yield a rigorous and exacting portrait of

American secondary education and the American high school student during a momentous decade of change. The longitudinal frame permits an investigation of the effects of variation across schools in educational processes and an adequate data base to infer causal relationships between school and student characteristics.

#### A. STUDY RATIONALE AND ISSUES TO BE DISCUSSED

This technical report is one of two reports that will be produced by Educational Testing Service as part of the Study of Excellence in High School Education. The general, long-term goal of this project is to improve school quality and, thus, produce excellence in high school education. The specific, short-term goals are to conduct two studies: 1) a cross-sectional analysis comparing 1972 high school seniors and their schools with 1980 high school seniors and their schools, which is the basis of this report, and 2) a longitudinal analysis relating growth and development of 1980 high school sophomores to their schooling experience over the period 1980-82.

This cross-sectional study has three major objectives: 1) to document changes in achievement and other student outcomes over time both nationally and by selected subpopulations, 2) to identify the school and student variables that are related to changes in student achievement and other outcomes, and 3) to present this information to educational policy-makers in a way that will illuminate and assist their decision making.

There are both substantive and analytical issues addressed in this report. By substantive issues, we mean what we are looking at. By analytical issues, we mean how we look at these topics. The basic problem concerns the identification of school and student factors that are related to student outcomes. The major focus, however, is on those variables that can be changed through educational policy rather than on predetermined school characteristics.

The substantive issues are:

- How did the American high school and its students change between 1972 and 1980?
  - o Changes in student characteristics and family background.
  - o Changes in student body characteristics, staff characteristics, educational programs, teaching methods, school facilities, and students' educational experiences.
  - o Changes in tested achievement and in school grades.
  - o Changes in students' educational and occupational aspirations, attitudes and values, and school behaviors.
- What factors account for changes in high school student outcomes?

- o Demographic characteristics of students.
- o Student behaviors and attitudes (e.g., amount of homework done, number and type of courses taken, educational vs. occupational aspirations, etc.).
- o School characteristics (e.g., characteristics of teachers, curricular offerings, instructional methods, etc.).
- o Home educational support (e.g., parental influence on students' plans, study aids in the home, etc.).

The analytical issues are:

- What kinds of methodologies are needed to identify determinants of change in cross-sectional data?
- How can the effects of student characteristics be differentiated from the effects of school characteristics on student outcomes?

#### B. RELEVANCE OF STUDY FINDINGS FOR EDUCATIONAL POLICY AND PRACTICE

In the last year, eight major studies have reported on the status of American education today (National Commission on Excellence in Education, 1983; Twentieth Century Fund, 1983; Education Commission of the States, Task Force on Education for Economic Growth, 1983; College Entrance Examination Board, 1983; The Carnegie Corporation, 1983;Sizer, 1983; Boyer, 1983; and Goodlad, 1983). These studies sounded a common theme: The American educational system is in trouble. The National Commission report issued the strongest indictment of the system, stating that the average graduate of our schools and colleges today is not as well-educated as "the average graduate of 25 or 35 years ago, when a much smaller proportion of our population completed high school and college."

The reports presented the following evidence of the scope and seriousness of the decline in academic achievement:

- o Average achievement of high school students on most standardized tests is now lower than 26 years ago when Sputnik was launched (National Commission, p. 8).
- o The College Board's Scholastic Aptitude Tests demonstrate a virtually unbroken decline from 1963 to 1980, with the number and proportion of students demonstrating superior achievement also having dramatically declined (National Commission, pp. 8-9).
- o Successive national assessments throughout the 1970s have shown a steady decline in mathematics and science achievement (National Task Force, p. 5).
- o Remedial mathematics enrollments at 4-year colleges increased 72 percent between 1975 and 1980 (National Task Force, p. 5).

- o Many 17-year-olds do not possess the "higher order" intellectual skills needed to function in a technological society.

The reports identified five areas that in large part explained the student outcomes mentioned above. First, demographic changes and changes in societal values have changed the role of schools. The schools have to teach more "hard-to-educate" youngsters skills that were once possessed by only a few, while providing a range of social services, such as performing the role of a parent, nurse, nutritionist, sex counselor and policeman (Twentieth Century Fund, 1983). Second, schools now expect and require less of students. The amount of homework assigned to high school seniors has decreased, the difficulty of subject matter has been reduced, grades have become inflated, and "minimum competency" examinations have replaced more rigorous standards of performance. Third, the content of education is less rigorous. More students are taking "general track" courses; fewer students are choosing to enroll in advanced mathematics and science courses. An emphasis on "back-to-basics" has diminished the concern for science and has emphasized computational skills rather than the mastery of mathematical concepts. Fourth, American high school students spend too little time on school work in terms of the number of hours spent in school, the number of days in the school year, and the time spent in class on academic instruction. For example, within a week's time of approximately 25 instructional hours in the nation's elementary schools, only one hour is devoted to science and less than four hours are devoted to arithmetic. Finally, not enough of the more academically able students are attracted to teaching. Existing teacher preparation and in-service training programs need improvement.

This study's research questions, listed in the following section, have been designed to inform policymakers about the sources of our current educational problems and to identify educational practices that appear to be important for educational excellence. For example, commentators have attributed the declines in test scores to higher levels of truancy and negative attitudes toward school; to increased drug and alcohol abuse by students; to increased amounts of time spent watching television rather than doing homework; to an increase in labor force participation by students; and to family factors such as increased divorce, marital disruption and smaller family size. This study compares the amount and rates of cognitive change among students having some of these attributes, and determines whether the declines in test scores are equal across such groups. If such factors yield common patterns of change, or if the composition of students in such categories between 1972 and 1980 does not change, these factors are unlikely candidates to explain the structural declines in test scores and other educational outcomes. These data, since they apply to comparable cohorts, are more pertinent to assess such changes than prior analyses based on SAT scores (Austin & Garber, 1982; Jencks, 1978). By comparing the 1972 and 1980 student populations, it is possible to isolate more sources of test score decline that relate to a changing profile of student characteristics during this period.



Although prior SAT score decline studies focused on a small portion of the high school cohort, they have been useful in generating hypotheses to explain test score decline. The Advisory Panel on the Scholastic Aptitude Test Score Decline (Wirtz, 1976) concluded that the decline had occurred in two phases, with a different explanation of each. In the first, from 1960 to 1972, the explanation rested in the fact that the SAT-taking population had undergone a drastic change, from a relatively small segment of the high school population headed for elite private colleges largely in the East to a much larger segment of the high school population that was more broadly representative of the range of abilities of high school seniors in the United States. In the second phase of the score decline, from 1972 to 1980, the number of students taking the SAT remained roughly constant, and also the total number of high school seniors. But throughout the period the score decline continued, apparently because of some other factor or factors. After considering approximately 75 hypotheses, the panel members concluded that "there is no one cause of the SAT score decline, at least as far as we can discern, and we suspect no single pattern of causes."

The panel did, however, mention six possible causes:

1. the proliferation of elective courses,
2. the lowering of academic standards,
3. the competition of television,
4. the weakening of the role of the family in the educational process,
5. national tensions, and
6. diminution of students' learning motivation.

This section has provided an introduction to the policy issues that are addressed in this study. The research questions expand on these issues.

#### C. MAJOR RESEARCH QUESTIONS AND HYPOTHESES

The following questions are examples of those addressed in the analysis.

##### 1. Descriptive Cross-Sectional Analysis

- a. How much and in what direction did test scores change between 1972 and 1980? Are these changes consistent across type of student (gender, race/ethnicity, SES), type of school, region of the country and curriculum? Are these changes consistent across test content areas?

We hypothesize, based on similar SAT analyses, that:

- o Test scores declined between 1972 and 1980;
  - o The test score decline was less for minority students than for majority students;
  - o The size and direction of the test score changes varied across curriculum (e.g., academic, general and vocational); and
  - o The changes in test scores were greater on things taught directly (e.g., mathematics) than on things taught less directly (e.g., vocabulary).
- b. How much and in what direction did students' self-reported grades change between 1972 and 1980? Are these changes consistent across type of student, type of school, region of the country and curriculum?

We hypothesize, based on other studies showing grade inflation, that there was an increase in mean grades reported from 1972 to 1980. We also hypothesize that this change was relatively uniform across students, schools, regions, and curriculum.

- c. How much and how did students' educational and occupational aspirations change from 1972 to 1980? Are these changes consistent across type of student curriculum?

We hypothesize that:

- o More 1980 seniors than 1972 seniors planned post-secondary education;
- o More 1980 seniors than 1972 seniors planned to attend a community college;
- o The rise in educational aspirations was greatest among women and minorities;
- o More seniors in the general curriculum had aspirations for college in 1980 than in 1972;
- o Students' occupational aspirations changed between 1972 and 1980; more 1980 seniors were interested in professional and technical occupations, while fewer 1980 seniors were interested in clerical occupations or in full-time homemaking; and
- o Occupational aspirations changed more for females and minorities.



- d. How much and how did student behaviors, attitudes and values change between 1972 and 1980?

We hypothesize that:

- o The amount of homework done by students decreased from 1972 to 1980 and that this decline was consistent across curriculum;
  - o The participation rates in extracurricular activities increased from 1972 to 1980, but the percentage involved in honorary societies and other academically oriented activities declined;
  - o Students' evaluations of their school experiences were less positive in 1980 than in 1972;
  - o Students took fewer math, science and foreign language courses in 1980 than in 1972;
  - o There were fewer students enrolled in the academic curriculum and more enrolled in the general curriculum in 1980 than in 1972;
  - o There was an increase, from 1972 to 1980, in students' confidence about their ability to complete college and this increase was greatest for women and minorities; and
  - o More 1980 students were concerned with money and job security and fewer with social problems than 1972 students; these patterns were consistent across all groups of students;
- e. How much and how did student background and family characteristics change between 1972 and 1980?

We hypothesize that:

- o There was a higher proportion of minority students, educationally disadvantaged students, and students classified as handicapped in the schools in 1980 as compared with 1972; and
  - o Parents of 1980 students had a higher mean education level than parents of 1972 students.
- f. How much and how did schools change between 1972 and 1980?

We hypothesize that:

- o There were more schools in which the majority of students were enrolled in a nonacademic curriculum in 1980 than in 1972;
- o The student teacher ratio decreased from 1972 to 1980;
- o Advanced placement courses were more available in 1980 than in 1972;

- o Student absenteeism and dropout rates were higher in 1980 than in 1972;
- o Teacher turnover rates were higher in 1980 than in 1972;
- o A larger percentage of teachers had master's degrees or doctorates in 1980 than in 1972; and
- o There were more schools that were predominantly minority in 1980 than in 1972.

## 2. Relational Cross-Sectional Analysis

- a. What was the effect of changes in demographic characteristics of high school seniors, changes in student attitudes and school-related behaviors, changes in students' home environments, and changes in school characteristics on test scores?

We hypothesize that the test score decline reflects:

- o A change in the racial/ethnic mixture in the sample of test-takers;
  - o A decline in the amount of time devoted to traditional academic subjects, such as English, foreign languages, science, mathematics, and social science;
  - o A reduction in the amount of writing required of students and in the number of laboratory courses taken;
  - o A reduction in the amount of time students devote to doing homework;
  - o An increase in the holding power of the high school;
  - o An increase in parental education; and
  - o An increase in parents' educational aspirations for students.
- b. Do members of different subgroups experience different educational processes which explain differences in achievement outcomes? Did these subgroups go through different educational processes in 1972, and in 1980?

There are a number of other hypotheses which have been discussed in the popular press and would therefore be tempting to investigate (such as score decline being related to an increase in student television watching, to a deterioration in discipline in the schools, or to an increase in students coming from single parent families). Unfortunately, the cross-sectional data do not permit these comparisons. Many of these hypotheses, however, will be explored in the longitudinal 1980-82 study.

#### D. REPORT OVERVIEW

The remainder of this report is divided into ten chapters. The next chapter (Chapter II) describes the study instrumentation and methodology. Next are four chapters which provide a descriptive analysis of the changes between 1972 and 1980. Chapter III provides a description of the two samples. It also covers changes in student background and family characteristics. Changes in schools are covered in Chapter IV; this includes changes in student body characteristics, in staff characteristics, in educational programs and teaching methods, and in student evaluations of school facilities vs. their educational experiences. Chapter V covers changes in test scores and in self-reported grades. In Chapter VI changes in students' school-related behaviors, attitudes and values are described. The next three chapters provide a relational analysis focusing on test score changes as the major outcome. Chapter VII covers the partitioning of mean score changes. In Chapter VIII partitioning is done using analysis of covariance to look at the relative impact of blocks of variables on score changes while controlling for other blocks of variables. The final relational analysis, covered in Chapter IX, uses path analysis to explore how the members of those groups which showed the greatest test score decline differ in educational processes from the members of those groups with less decline. Chapter X provides a summary and policy recommendations.

## CHAPTER II

### INSTRUMENTATION AND METHODOLOGY

This chapter describes, briefly, the tests and questionnaires used in this study and the methods used to analyze them. Readers interested in more detailed information about the tests should refer to the Psychometric Analysis report for this study (Rock et al., 1984a). Further information about the analysis methodology can be found in the project Research Design Statement (Rock et al., 1984b).

#### A. INSTRUMENTATION

Two different types of instruments were used to obtain the data used in this analysis--tests and questionnaires. Both the test battery and the questionnaires underwent a number of changes between 1972 and 1980. This cross-sectional analysis is, therefore, limited to the test and questionnaire items that are common to both years.

##### 1. Tests

The cognitive<sup>1</sup> tests used in the National Longitudinal Study of the High School Seniors Class of 1972 (NLS) and in High School and Beyond (HS&B) have a long and complex history. In this chapter we will provide a brief description of the test batteries and their interrelationships.

a. 1972 Senior Tests. In the spring of 1972, 18 randomly selected students in each of a sample of 1,044 randomly selected high schools took a battery of cognitive tests as part of the base-year survey of the longitudinal study which was to continue for an unspecified time. As of this writing, four follow-ups have been conducted, and a fifth follow-up is in the planning stage. The battery consisted of six tests which are listed in the left-hand column of Figure 1. These tests and a brief description of each follow:

Vocabulary - Fifteen moderately difficult items consisting of one word followed by five possible synonyms. Test-taker selects one word or phrase whose meaning is closest to that of stem.  
Time - 5 minutes.

Picture-Number - Test of short-term associative memory in which the test-taker first studies pairs of pictures and 2-digit numbers and then is shown the pictures only and is asked to select the number on the answer sheet that was paired with picture. Time - 3 minutes to study 15 items in Part 1, and 2 minutes to answer; similarly for Part 2.

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<sup>1</sup> We use the adjective "cognitive" to describe a broad category of tests that includes basic intellectual skills, achievement, developed ability, and scholastic aptitude.

Reading - Relatively unspeeded measure of reading comprehension in which 5 reading passages are given and test-taker answers multiple-choice questions (with 5 options) concerning what is stated or implied in each passage. Time - 15 minutes.

Letter Groups - A test of inductive reasoning where each item consists of five groups of letters. The test-taker determines which four groups share a common characteristic and indicates the group which differs from the others. Time - 15 minutes.

Mathematics - Twenty-five items in which the test-taker indicates which of two quantities is greater, or equal, or that the data given are insufficient to make a decision. The items were selected not to require specific algebraic, geometric or trigonometric skills. Time - 15 minutes.

Mosaic Comparisons - This test was used as a highly speeded measure of perceptual speed and accuracy. The subject compares one hundred and sixteen pairs of tile-like patterns to detect the location of small differences in the designs. Time - Part 1 (56 items), 3 minutes; Part 2 (33 items), 3 minutes; Part 3 (27 items), 3 minutes.

Total testing time - 69 minutes.

The test battery was administered by a survey administrator in each school who usually was a guidance counselor or an experienced teacher. The students marked their answers in a separate mark-sensed answer sheet, not in the test booklet.

b. 1980 Tests. In the spring of 1980, as part of High School and Beyond, 36 randomly selected seniors in each of 1,015 high schools took test batteries that roughly paralleled the 1972 test. As shown in Figure 1, the 1980 tests were quite similar to the 1972 tests. The entire Letter Groups test was dropped, as well as parts of two other tests, to make room for a test of spatial relations (Visualization in Three Dimensions) and a self-report measure of the student's reactions to the testing situation ("Questions About the Tests"). Brief descriptions of the two instruments added to the 1980 battery follow.

Visualization in Three Dimensions - This test is a measure of "the ability to visualize how a figure would look after manipulation in three-dimensional space, by folding a flat figure to make a three-dimensional figure." Each of the 16 items in the test has a drawing of a flat piece of metal in the left-hand column and drawings of five objects on the right, only one of which could be made by folding the flat piece of metal. The test-taker selects the one object that could have been made. Time - 9 minutes.



Questions About the Tests - This 6-item self-report questionnaire was designed to tap factors that may have prevented the test-takers from performing as well as they might have under optimum testing conditions. Included are questions inquiring about the importance of the testing to the students, their concern about doing well, how much they enjoyed participating, and how they felt while taking the tests. Time - 5 minutes.

The total 1980 test battery and the time allowed were as follows:

Vocabulary

|        |           |
|--------|-----------|
| Part 1 | 5 minutes |
| Part 2 | 4 minutes |

Reading 15 minutes

Mathematics

|        |            |
|--------|------------|
| Part 1 | 15 minutes |
| Part 2 | 4 minutes  |

Picture-Number 5 minutes

Mosaic Comparisons

|        |           |
|--------|-----------|
| Part 1 | 3 minutes |
| Part 2 | 3 minutes |

Visualization in Three Dimensions 9 minutes

Questions About the Tests 5 minutes

Total time - 68 minutes

c. Common Items. In a report to NCES (Donlon et al., 1978), ETS recommended that the Letter Groups, Picture-Number, and Mosaic Comparisons tests be dropped from the test battery. Surveys of users of the 1972 public release tape and of the research literature indicated that data from these three tests had been little used. Also, it had been argued that "Measures of basic cognitive skills are not designed to assess patterns of change over time" (Haertel & Wiley, 1978). ETS concurred with these views. In the Psychometric Analysis, we found that mean scores increased dramatically between 1972 and 1980 on both the Mosaic Comparisons test and the Picture-Number test. Both of these tests require careful supervision during their administration. Without this control, examinees can refer back to the study pairs of pictures while taking the Picture-Number test and inflated scores would result. Mosaic Comparisons is highly speeded, and scores can be dramatically increased if time limits are not carefully monitored. The Psychometric Analysis found the correlations between the first and second halves of the two

parts of the Mosaic Comparisons test were low (.25 to .36), strongly suggesting that this test has low reliability. In addition, as described in the Psychometric Report, in 1972 the sample members responded on a separate answer sheet and in 1980 they responded in the test booklet--a change which is known to affect responses. Given all of these factors, it was decided to eliminate the Picture-Number and Mosaic Comparisons tests from further analysis for this study.

Of the remaining tests, Vocabulary and Reading were identical in the two batteries and 18 of the 25 mathematics items either were identical (12) or had minor editorial or format changes (6). Item response theory (IRT) was used to score and equate tests across populations. Using IRT, Mathematics, Vocabulary and Reading scores were put on the 1972 score scale. The IRT equated items are the basis of the test score comparisons in this cross-sectional study. Additional technical information is provided in the Psychometric Analysis (Rock, et al., 1984a).

## 2. Questionnaires

The 1972 and 1980 data collections also utilized questionnaires to gather information from students and their schools. These questionnaires provide a rich source for studying the changing demographics of American high schools, changing school conditions, and changing attitudes, values and behaviors among the students.

There were four data collection forms used in 1972 in addition to the student tests. These were: the Student Questionnaire, the Student's School Record Information Form, the School Questionnaire, and the Counselor Questionnaire. In 1980, a Student Questionnaire, a School Questionnaire, and a Teacher Questionnaire were the main data collection instruments supplementing the student tests.

The 1972 Questionnaire is divided into four sections covering: 1) high school experiences, 2) attitudes and plans, 3) plans for the future (with separate subsections for those planning to work full-time during the year they leave high school, those planning to enter military service, those planning to become homemakers, those planning to take vocational or technical courses, those planning to go to a two- or four-year college or to a university, and those planning part-time work), and 4) a final section with information primarily demographic in nature. There were a total of 107 items in this questionnaire. The 1980 Senior Questionnaire covers much of the same material as the 1972 version. There are a total of 121 items. Although many of the items are the same in these two questionnaires, there was addition, deletion, and rephrasing of questions. Table 1 in Appendix A shows the comparable or similar items from the two student questionnaires used in this analysis.

The 1972 School Questionnaire is divided into three sections covering: 1) program and student information, 2) resources, and 3) the grading system. The 1980 School Questionnaire is similar but, again, includes

various changes. Table 2 in Appendix A shows the comparable or similar items from the two school questionnaires.

Data from the other questionnaires were used primarily to confirm or elaborate on the information in the Student and School questionnaires.

## B. METHODOLOGY

This section describes the methodology for the 1972 and 1980 comparisons. The descriptive analysis not only documents changes in student achievement, background, behavior and attitudes and in their schools, but it also provides a subset of critical input and process variables for use in the relational analysis.

The classification variables and subcategories used in this cross-sectional descriptive analysis are shown below. A complete list of the outcome variables are included in Appendix A, and the classification variables are defined in Appendix B.

1. Sex--male and female;
2. Race/Ethnicity--White, Black, Asian-American, American Indian, Mexican-American, Puerto Rican, and Other Hispanics;
3. Socioeconomic Level--high, middle, and low;
4. Type of School--public, private, and private-parochial;
5. Community Type--urban, suburban/small city, and rural;
6. Geographic Region--Northeast, North-Central, South, and West;
7. Curriculum Type--academic, general, and vocational; and
8. Administrative Population--1972 and 1980.

For each continuous outcome variable, we provide an introductory descriptive analysis table showing the mean and standard deviation for that variable, for 1972 and 1980, by each of the first seven classification variables. We also show the 1980-1972 mean difference and the effect size of this difference. For categorical outcome variables we show the percentage choosing each option and the 1980-1972 in percentages. For most outcome variables, we provide additional descriptive analyses showing 1972 and 1980 differences categorized in three-way tables which include sex by curriculum, socioeconomic status by race, socioeconomic status by school type, socioeconomic status by geographic region, socioeconomic status by curriculum, and socioeconomic status by community type.

An asterisk on a number in the column "1980-1972 difference" indicates that the difference between means is statistically significant at

the .05 level or less. The standard errors used in the statistical test of the difference between test score means uses a sample design effect correction (deft) of approximately 1.6. The test score correction factor (deft) used was based on the 1980 total Senior sample. The deft for the 1972 sample was slightly less, but in the interest of providing a conservative test, the constant value of 1.6 was used for test scores in both samples. This total sample deft was also used to correct the test score standard errors within subpopulations. This decision also leads to conservative statistical tests since in the vast majority of 1972-1980 subsample comparisons, the subsample defts were slightly smaller than the deft of the total sample. It was felt that it would be more judicious to err on the side of finding no differences (i.e., no change), especially in those instances where there were relatively few numbers of data cases. Separate defts for 1972 and 1980 were used for correcting the standard errors of percentages. The total sample defts were used in the subsamples as well as for totals.

The column labeled "effect size" is the difference between means divided by the pooled standard deviation. This measure of effect size is scaled in terms of standard deviation units, and since it is independent of sample size, it allows one to make rough comparisons of the relative magnitude of changes across populations and/or in outcome variables having different metrics.

What can one say about whether an effect size is small, moderate, or large? Cohen (1969) suggests that comparisons of treatments in the social sciences frequently yield effects sizes of .20 and below while very few ever yield effect sizes as large as .80 and above. Similarly, Smith and Glass (1977) report average effect sizes of .68 in treatment-control comparisons. It should be pointed out here that these notions about what is a small, moderate, or a large effect are for the most part gathered from empirical data where the comparison is between a group receiving a formal intervention and a non-treated control group, or alternatively a group receiving what is believed to be an inferior treatment.

Since the comparison here is between two relatively similar populations, receiving similar treatments but separated in time, one should probably be more modest with respect to expectations about obtained effect sizes. That is, considering the context of these 1972-1980 comparisons the following categories of effect sizes will be used in succeeding interpretations. A statistically significant effect between 10 percent and 20 percent of a pooled standard deviation will be considered a small but practically significant effect. Effect sizes of 21 percent to 50 percent of a standard deviation will be considered to be moderate-sized effects while 51 percent of a standard deviation and larger will be considered large effects.

#### 1. Descriptive Analysis

The descriptive analysis is targeted toward answering four major questions:

- a. How did the students and their background characteristics change between 1972 and 1980?

In Chapter III we describe the 1972 and 1980 samples. We show changes in the percentage of males and females, the percentage of students in each racial/ethnic category, the percentage of students enrolled in different curricula, the socioeconomic background of the students, and the community type and region of the country in which they reside. We also examine changes in parental education and occupation.

- b. How did schools, their educational programs, and other learning conditions change between 1972 and 1980?

Changes in student body characteristics, including absenteeism and dropout rates and the percentage of college-bound students; in staff characteristics; in educational programs; and in students' evaluations of their school experiences are presented by four of the major classification variables in Chapter IV.

- c. How much did tested achievement and school grades change between 1972-1980?

In Chapter V, summary statistics for the mean test score changes are presented in IRT scaled units and in effect size scaled units. Information on self-reported grades is also included.

- d. How much did behaviors, attitudes, etc., change for various groups of students and schools?

Changes in homework, extracurricular activities, attitudes toward school, educational and occupational aspirations, self-esteem, and life/work goals are presented in Chapter VI using the seven major classification variables. When the dependent variables are on a quantitative scale, means and standard deviations are presented. Scaled effect sizes are presented where there is a comparison of two means. When the data is nominal, tables show cell, row, and column marginal percentages and frequencies.

## 2. Relational Analysis

One major concern of the relational analysis is to determine the extent that changes in test scores are related to changes in population composition. When interpreting the difference between distributions of the same outcome for two populations, demographers and social scientists must be very cautious to recognize structural differences in the populations that might partly or wholly explain the observed differences (Das Gupta, 1978). Researchers can begin to postulate external causes for the observed change only if there are no shifts in population characteristics or if the effects of those shifts can be accounted for.



The first question the relational analysis of test scores addresses is: What are the relatively manipulable and non-manipulable individual background and family, school, and community characteristics that are related to each of the achievement test scores within each population? These explanatory variables were selected from the list of items common to the 1972 to 1980 Student and School questionnaires. Secondly, the shift in the distribution of each variable common to both 1972 and 1980 is examined since the degree to which a particular variable may contribute to a change in the mean score for the general population depends on both the change in mean score for the members of a particular category and on the extent to which the relative size of the category may have changed from 1972 to 1980.

Two techniques were used to partition the test score decline. The first technique describes the extent of the relationship between selected population and behavioral shifts to score decline. This type of analysis provides considerable detail about how classifying an individual on one or two variables at a time relates to test score changes between 1972 and 1980. In addition, this methodology attempts to partition the total score change into that part that was due to population shifts in the classification variables and that part that was due to mean changes within the classification groupings.

This partitioning procedure, however, does not lend itself to evaluating the impact of any one given classification variable or set of classification variables on score changes while controlling for the effects of numerous confounding variables. The second procedure that was used attempts to look at the relative impact of selected blocks of variables on the 1972-1980 mean score changes both before and after controlling for other confounding blocks of variables. The four blocks of variables are (1) demographics (e.g., race/ethnicity, sex); (2) student behavior and attitudes; (3) school characteristics; and (4) home educational support systems (e.g., parental influences, parental education, etc.). This partitioning procedure uses a "step down" analysis of variables that form a block while controlling for the remaining blocks. A second step in this step down ANCOVA is the identification of the variables in each block that contribute the most to that particular block's net effect on mean score change.

In a sense this method takes the multiplicity of findings from the first method and sorts them into logical sets or blocks and summarizes their net impact on mean test score change.

The above two methods are primarily exploratory and descriptive in nature. The third and final method contrasts path analysis models for the 1972 and 1980 cohorts separately in an effort to shed light on what changes in processes might have occurred to account for both the overall and, as well, differential score decline.

### CHAPTER III

#### THE SAMPLES AND BACKGROUND CHANGES

This chapter describes the 1972 and 1980 samples and how the background characteristics of students in these samples changed between 1972 and 1980.

##### A. THE SAMPLE

Table 3-1 shows the size of the 1972 and 1980 student samples. Both the actual number of cases and the weighted estimate of the population size (N), used for generalizing to national samples, are presented. Also shown here, but not included in other tables, is the number of cases for which information on one or more classification variables is missing. Definitions of the classification codings are presented in Appendix B.

In both years, students were selected through a two-stage probability sample, with schools as the first stage units and students within schools as the second stage units. With the exception of special strata, schools were selected with probability proportional to estimated enrollment, and within each school, seniors were randomly selected.

The NLS-72 sample design called for the selection of a deeply stratified national probability sample of 1,200 public and private high schools and the selection of simple random samples of 18 seniors, where possible, and one or two counselors from each school. Schools in low income areas or with high percentages of minority-group students were over-sampled. Students from backup or substitute schools were also included in the study, resulting in a final sample of 1,318 schools.

The 1980 High School and Beyond study design called for a highly stratified national probability sample of 1,122 high schools with 36 seniors and 36 sophomores per school. (In those schools with fewer than 36 seniors or sophomores all eligible students were included in the sample.) Over 30,000 sophomores and 28,000 seniors enrolled in 1,015 public and private high schools across the nation participated in the base-year survey. Once again over-sampling was done for special strata schools including schools that were predominately Hispanic, Catholic schools that had substantial Black enrollments, alternative schools, high performance private schools, and other non-Catholic private schools.

Detailed information about the 1972 sample can be found in the NLS Data File User's Manual (Levinson, Henderson, Ricaobono, & Moore, 1978). Detailed information about the 1980 sample can be found in the High School and Beyond Sample Design Report (Frankel, 1981).

Although the NLS-72 and HS&B sample designs specified that students in all but the special strata would be selected with approximately equal probabilities, the probabilities are only approximately equal. The

sample as realized did not equal the sample as drawn, creating further deviations from a self-weighting sample. Weights were introduced for schools and for students, giving each school or each student a weight equal to the number of schools or students in the universe of schools or students which that school or student represents.

#### B. CHANGES IN STUDENT CHARACTERISTICS

As Table 3-1 shows, the population estimate of the number of high school seniors was virtually the same in 1972 and 1980. But the composition of the senior group changed considerably. In 1972 high school seniors were about evenly divided between males and females. Estimates from the 1980 HS&B sample showed males constituting 48.1 percent of all high school seniors and females 51.9 percent of all seniors. These proportions do not include about five percent of the students who did not report their gender. Further analysis enabled us to estimate that this group was approximately 60 percent male. Readjustments using this information would indicate that the 1980 seniors were 48.6 percent male and 51.4 percent female. Smaller declines in the proportion of male high school seniors have been reported elsewhere. For example, NCES data on high school graduates shows that males were 49.4 percent of 1972 graduates and 49.0 percent of 1980 graduates (The Condition of Education, 1984).

Because of the way individuals were classified into SES groups, no interpretation of shifts in SES group membership will be made.

Racial/ethnic composition also changed. White students declined from an estimated 85.8 percent of 1972 seniors to 79.9 percent of 1980 seniors. Black high school seniors increased from an estimated 8.7 percent in 1972 to 11.6 percent in 1980. Hispanics, including Mexican-Americans, Puerto Ricans, and other Hispanics, increased from an estimated 3.5 percent of 1972 seniors to 6.5 percent of 1980 seniors. There was also a slight increase in the estimated proportion of Asian-American students (from 0.9 percent to 1.3 percent). The estimated proportion of American Indian students declined from 1.1 percent to 0.7 percent. All these population estimates are, of course, subject to sampling and non-sampling errors.

There were also major changes between 1972 and 1980 in the curriculum tracks in which seniors were enrolled. The estimated proportion of seniors enrolled in the academic curriculum decreased from 45.7 percent in 1972 to 38.1 percent in 1980. Estimated enrollments in the general curriculum increased from 31.8 percent of the 1972 seniors to 37.2 percent of the 1980 seniors. There was also a slight increase in the estimated proportion of students in the vocational curriculum (from 22.5 percent in 1972 to 24.7 percent in 1980).

A slightly smaller proportion of 1980 seniors (90.0 percent) than 1972 seniors (91.5 percent) was enrolled in public schools. The estimate of the proportion enrolled in Catholic schools declined from 7.9 percent in 1972 to 6.6 percent in 1980 while the estimated proportion of all

TABLE 3-1

|                          | NUMBER OF CASES |               |      |             |               |      |
|--------------------------|-----------------|---------------|------|-------------|---------------|------|
|                          | NLS 1972        |               |      | HSB 1980    |               |      |
|                          | SAMPLE<br>N     | WEIGHTED<br>N | %    | SAMPLE<br>N | WEIGHTED<br>N | %    |
| <u>TOTAL</u>             | 16683           | 3043598       |      | 28240       | 3040928       |      |
| <u>SEX</u>               |                 |               |      |             |               |      |
| Male                     | 8281            | 1517010       | 49.9 | 12907       | 1400722       | 48.1 |
| Female                   | 8397            | 1525571       | 50.1 | 14086       | 1512417       | 51.9 |
| No Data                  | 5               | 1017          |      | 1247        | 127789        |      |
| <u>SES</u>               |                 |               |      |             |               |      |
| Low                      | 4827            | 741612        | 24.5 | 8409        | 811768        | 27.4 |
| Middle                   | 7927            | 1554775       | 51.3 | 12801       | 1423448       | 48.1 |
| High                     | 3863            | 735728        | 24.2 | 6180        | 723528        | 24.5 |
| No Data                  | 66              | 11483         |      | 850         | 82184         |      |
| <u>RACE/ETHNICITY</u>    |                 |               |      |             |               |      |
| White                    | 12847           | 2527200       | 85.8 | 19852       | 2364647       | 79.9 |
| Black                    | 2127            | 256777        | 8.7  | 3775        | 344397        | 11.6 |
| Asian-American           | 193             | 27740         | .9   | 365         | 39373         | 1.3  |
| American Indian          | 189             | 31400         | 1.1  | 217         | 22254         | .7   |
| Mexican-American         | 558             | 73285         | 2.5  | 1893        | 102170        | 3.5  |
| Puerto Rican             | 96              | 9764          | .3   | 308         | 18169         | .6   |
| Other Hispanic           | 122             | 18844         | .7   | 976         | 67166         | 2.4  |
| No Data                  | 551             | 98589         |      | 854         | 82753         |      |
| <u>SCHOOL TYPE</u>       |                 |               |      |             |               |      |
| Public                   | 14957           | 2701422       | 91.5 | 24678       | 2736069       | 90.0 |
| Private                  | 67              | 16549         | .6   | 875         | 104730        | 3.4  |
| Catholic                 | 1027            | 235795        | 7.9  | 2687        | 200129        | 6.6  |
| No Data                  | 632             | 89832         |      | 0           | 0             |      |
| <u>GEOGRAPHIC REGION</u> |                 |               |      |             |               |      |
| Northeast                | 3618            | 804775        | 26.4 | 5689        | 696768        | 22.9 |
| North Central            | 4568            | 917658        | 30.2 | 8102        | 869669        | 28.6 |
| South                    | 5513            | 796009        | 26.2 | 9309        | 924433        | 30.4 |
| West                     | 2984            | 525157        | 17.2 | 5140        | 550057        | 18.1 |
| No Data                  | 0               | 0             |      | 0           | 0             |      |
| <u>CURRICULUM</u>        |                 |               |      |             |               |      |
| General                  | 5673            | 968623        | 31.8 | 10293       | 1112603       | 37.2 |
| Academic                 | 6812            | 1391944       | 45.7 | 10532       | 1138492       | 38.1 |
| Vocational               | 4197            | 682728        | 22.5 | 6959        | 740965        | 24.7 |
| No Data                  | 1               | 303           |      | 456         | 48867         |      |
| <u>COMMUNITY TYPE</u>    |                 |               |      |             |               |      |
| Urban                    | 4563            | 787529        | 26.5 | 6524        | 610511        | 20.1 |
| Suburban                 | 7965            | 1540863       | 51.9 | 13580       | 1502435       | 49.4 |
| Rural                    | 3684            | 639947        | 21.6 | 8136        | 927981        | 30.5 |
| No Data                  | 471             | 75260         |      | 0           | 0             |      |

seniors enrolled in private schools increased from 0.6 percent in 1972 to 3.4 percent in 1980.

National shifts in population are also evident in these data. The estimated proportion of all high school seniors from the Northeastern and North Central regions declined while the estimated proportion from the South and the West increased.

There were also shifts in the type of community from which the seniors came. In 1972, it was estimated that 26.5 percent of the seniors came from urban communities, 51.9 percent from suburban communities, and 21.6 percent from rural communities. By 1980, it was estimated that 20.1 percent of the seniors were from urban communities, 49.4 percent from suburban communities, and 30.5 percent from rural communities.

In sum, the 1980 high school seniors were more likely to be female, members of a minority group, enrolled in a nonacademic curriculum, enrolled in a non-Catholic private school, from the South or West, and from a rural area than were the 1972 seniors. These shifts in the nature of the high school population have important consequences for achievement and for attitudes and values, as will be seen in Chapters V and VI.

#### C. CHANGES IN STUDENTS' FAMILY BACKGROUND

In this section we describe changes in parental occupation, in parental education, and in educational influences in the students' homes.

There is relatively little difference between the occupation of fathers of the 1972 and the 1980 seniors (Table 3-2). The major changes are a decline of 2.3 percentage points in fathers employed in craft occupations, an increase of 1.9 percentage points in fathers who are proprietors, and an increase of 1.3 percentage points in fathers holding managerial positions.

The apparent changes in mothers' employment are, unfortunately, a confounding of the actual increase in women's participation in paid work, which took place during this period, and a change of phrasing in the parental occupation question in 1972 and in 1980. In the later year, the student was asked to indicate the parents' "most recent occupation." Therefore these figures for mother's occupation in 1980 may be either her current occupation or her occupation whenever she last held a paid job. There was a decline, from 55.2 percent in 1972 to 15.1 percent in 1980, in the proportion of seniors' mothers whose occupation was homemaker. The increases for employment of mothers were primarily in clerical occupations (up from 16.2 percent in 1972 to 26.8 percent in 1980), professional occupations (up from 9.0 percent to 18.0 percent), and service occupations (up from 5.6 percent to 11.9 percent). The decline in the percentage of students reporting homemaker as their mother's occupation was consistent across SES and racial/ethnic groups. The type of occupation pursued, however, varied across these classifications very

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TABLE 3-2

Parental Occupation: 1972 and 1980 Total Group

|                | <u>Cler.</u> | <u>Craft</u> | <u>Farm</u> | <u>Home</u> | <u>Labor</u> | <u>Mgmt.</u> | <u>Military</u> | <u>Oper.</u> | <u>Prof.</u> | <u>Prop.</u> | <u>Protec.</u> | <u>Sales</u> | <u>Service</u> | <u>Tech.</u> |
|----------------|--------------|--------------|-------------|-------------|--------------|--------------|-----------------|--------------|--------------|--------------|----------------|--------------|----------------|--------------|
| <u>Fathers</u> |              |              |             |             |              |              |                 |              |              |              |                |              |                |              |
| 1972           | 2.9          | 18.2         | 5.1         | 0.2         | 11.0         | 13.7         | 2.6             | 11.8         | 14.0         | 6.9          | 2.6            | 6.0          | 2.1            | 3.0          |
| 1980           | 2.3          | 15.9         | 4.8         | 0.2         | 9.6          | 14.0         | 2.4             | 11.9         | 15.3         | 8.8          | 2.7            | 5.4          | 2.1            | 4.5          |
| <u>Mothers</u> |              |              |             |             |              |              |                 |              |              |              |                |              |                |              |
| 1972           | 16.2         | 0.7          | 1.0         | 55.2        | 1.3          | 1.7          | 0.2             | 3.2          | 9.0          | 1.2          | 0.3            | 3.6          | 5.6            | 0.7          |
| 1980           | 26.8         | 2.1          | 0.7         | 15.1        | 3.0          | 5.4          | 0.1             | 6.1          | 18.0         | 2.3          | 0.3            | 6.5          | 11.9           | 1.7          |

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predictably. For example, the largest proportion of low SES mothers was employed in service occupations, while the middle SES mothers predominated in clerical occupations, and high SES mothers in professional occupations.

Parental education was measured on a scale ranging from 1 = less than high school education to 5 = graduate or professional school. The mean for father's education (see Table 3-3) rose from 2.32 in 1972 to 2.62 in 1980. This mean education level indicates that the typical father had completed high school. This increase is significant for the total group and for all classification groups, except Puerto Ricans and Other Hispanics. Mother's education (see Table 3-4) increased from a mean of 2.19 in 1972 to 2.41 in 1980. This increase is also significant. These increases parallel national trends for increasingly higher levels of education in successive age cohorts. The slightly lower level of education for mothers than for fathers is also keeping with national data for adults.

To obtain a sense of the home support for learning, the students were asked to indicate whether or not certain study aids (a specific place to study, daily newspaper, encyclopedia/reference books, and typewriter) were available in their homes. The scale used in Table 3-5 ranges from 0 = have none of these, to 4 = have all of these. In 1972 the mean number of study aids in the seniors' homes was 3.21, indicating that the average senior had most of these aids. By 1980, however, the average number of study aids declined to 2.97, a significant change. This decline was similar for most of the classification groups.

As another indicator of home support for students' learning and home influence on students' educational aspirations, the students were asked to indicate the amount of schooling that their mother or female guardian wanted them to obtain. (See Table 3-6.) The scale ranges from 1 = less than high school to 5 = graduate or professional school. Using this scale, the mean level of education which the mothers wanted for the 1972 seniors was 3.63; for the 1980 seniors it was 3.73. This increase is significant. This change in parental educational aspirations for the students differs considerably, however, for males and for females. The 1972-1980 increase is significant for females but not for males. Thus, the differential parental educational aspirations for sons and daughters, evident in 1972, had all but disappeared in 1980. Mothers' educational aspirations for their children increased more for high SES students than for low SES students, thus increasing the gap in parental aspirations for high and low SES students. Mothers' educational aspirations for their children increased significantly between 1972 and 1980 for White, Black, Asian-American, and American Indian seniors but did not increase significantly for Hispanic students.

These data present a mixed picture of 1972-1980 changes in home pressure for student school achievement. Although parents provided fewer study aids for 1980 seniors than they did for 1972 seniors, more 1980 parents were, at the same time, providing their children with higher educational expectations, in terms of the amount of schooling to be

TABLE 3-3

HIGHEST EDUCATIONAL LEVEL COMPLETED BY YOUR FATHER OR MALE GUARDIAN  
(1=LESS THAN HIGH SCHOOL; 5=GRADUATE/PROFESSIONAL SCHOOL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 14054       | 2629005       | 2.32 | 1.2  | 21608       | 2370359       | 2.62 | 1.3  | 1.26           | 0.30 *                  | 0.24           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 6877        | 1291318       | 2.35 | 1.2  | 10110       | 1112665       | 2.68 | 1.3  | 1.27           | 0.34 *                  | 0.27           |
| FEMALE             | 7173        | 1336921       | 2.28 | 1.2  | 10778       | 1181524       | 2.57 | 1.3  | 1.25           | 0.29 *                  | 0.23           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 3578        | 574854        | 1.28 | 0.5  | 5702        | 550598        | 1.45 | 0.6  | 0.59           | 0.17 *                  | 0.28           |
| MIDDLE             | 6862        | 1366160       | 2.03 | 0.8  | 10443       | 1170251       | 2.36 | 0.9  | 0.84           | 0.34 *                  | 0.40           |
| HIGH               | 3614        | 687991        | 3.75 | 1.1  | 5447        | 639985        | 4.10 | 0.9  | 0.97           | 0.35 *                  | 0.36           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 11517       | 2279983       | 2.39 | 1.2  | 16352       | 1950751       | 2.70 | 1.3  | 1.26           | 0.31 *                  | 0.25           |
| BLACK              | 1348        | 165948        | 1.70 | 0.9  | 2072        | 190346        | 2.12 | 1.2  | 1.08           | 0.42 *                  | 0.39           |
| ASIAN-AMERICAN     | 166         | 24107         | 2.43 | 1.3  | 294         | 32805         | 3.03 | 1.4  | 1.35           | 0.60 *                  | 0.44           |
| AMERICAN INDIAN    | 130         | 21843         | 1.91 | 1.1  | 155         | 16148         | 2.47 | 1.3  | 1.18           | 0.56 *                  | 0.47           |
| MEXICAN-AMERICAN   | 376         | 50539         | 1.51 | 0.8  | 1364        | 74343         | 1.89 | 1.1  | 1.07           | 0.37 *                  | 0.35           |
| PUERTO RICAN       | 60          | 6135          | 1.51 | 0.8  | 181         | 10757         | 1.74 | 1.1  | 1.04           | 0.24                    | 0.23           |
| OTHER HISPANIC     | 90          | 14057         | 2.26 | 1.4  | 716         | 48101         | 2.35 | 1.3  | 1.27           | 0.09                    | 0.07           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 12556       | 2324125       | 2.31 | 1.2  | 18682       | 2110602       | 2.55 | 1.3  | 1.25           | 0.24 *                  | 0.19           |
| PRIVATE            | 64          | 15791         | 2.75 | 1.4  | 751         | 88385         | 3.49 | 1.4  | 1.37           | 0.74 *                  | 0.54           |
| CATHOLIC           | 948         | 219353        | 2.44 | 1.2  | 2175        | 171371        | 2.95 | 1.3  | 1.25           | 0.51 *                  | 0.41           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3113        | 708085        | 2.33 | 1.2  | 4346        | 551147        | 2.72 | 1.3  | 1.26           | 0.39 *                  | 0.31           |
| NORTH CENTRAL      | 3968        | 809038        | 2.27 | 1.2  | 6496        | 710145        | 2.55 | 1.2  | 1.22           | 0.29 *                  | 0.24           |
| SOUTH              | 4488        | 662161        | 2.23 | 1.3  | 6889        | 689501        | 2.46 | 1.3  | 1.26           | 0.23 *                  | 0.18           |
| WEST               | 2485        | 449721        | 2.50 | 1.3  | 3877        | 419566        | 2.84 | 1.3  | 1.29           | 0.34 *                  | 0.27           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 4624        | 805320        | 2.12 | 1.2  | 7638        | 838631        | 2.41 | 1.2  | 1.18           | 0.30 *                  | 0.25           |
| ACADEMIC           | 6205        | 1282026       | 2.63 | 1.3  | 8760        | 962327        | 3.07 | 1.3  | 1.29           | 0.44 *                  | 0.34           |
| VOCATIONAL         | 3224        | 541357        | 1.86 | 1.0  | 4965        | 541292        | 2.14 | 1.1  | 1.04           | 0.28 *                  | 0.27           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3794        | 672791        | 2.32 | 1.2  | 4435        | 426655        | 2.56 | 1.3  | 1.25           | 0.24 *                  | 0.19           |
| SUBURBAN           | 6957        | 1370669       | 2.48 | 1.3  | 10740       | 1199936       | 2.88 | 1.3  | 1.29           | 0.33 *                  | 0.25           |
| RURAL              | 3105        | 550568        | 1.91 | 1.0  | 6433        | 743769        | 2.35 | 1.2  | 1.15           | 0.45 *                  | 0.39           |

\*SIGNIFICANT AT .05 OR LESS

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TABLE 3-4

HIGHEST EDUCATIONAL LEVEL COMPLETED BY YOUR MOTHER OR FEMALE GUARDIAN  
(1=LESS THAN HIGH SCHOOL; 5=GRADUATE/PROFESSIONAL SCHOOL)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 14374       | 2678867       | 2.19 | 1.0  | 24188       | 2631211       | 2.41 | 1.0  | 1.03           | 0.22 *                  | 0.21           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 7004        | 1314944       | 2.23 | 1.0  | 10951       | 1197447       | 2.46 | 1.0  | 1.03           | 0.23 *                  | 0.22           |
| FEMALE                    | 7366        | 1363158       | 2.15 | 1.0  | 12370       | 1342256       | 2.37 | 1.0  | 1.04           | 0.23 *                  | 0.22           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 3754        | 596172        | 1.37 | 0.5  | 6955        | 677347        | 1.57 | 0.6  | 0.60           | 0.20 *                  | 0.33           |
| MIDDLE                    | 6964        | 1386492       | 2.03 | 0.7  | 11530       | 1287377       | 2.31 | 0.8  | 0.74           | 0.28 *                  | 0.37           |
| HIGH                      | 3653        | 695946        | 3.19 | 1.0  | 5627        | 658547        | 3.45 | 1.0  | 1.01           | 0.26 *                  | 0.26           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 11681       | 2309666       | 2.24 | 1.0  | 17709       | 2109124       | 2.46 | 1.0  | 1.02           | 0.22 *                  | 0.22           |
| BLACK                     | 1459        | 179597        | 1.86 | 1.0  | 2920        | 266891        | 2.24 | 1.1  | 1.05           | 0.38 *                  | 0.36           |
| ASIAN-AMERICAN            | 167         | 24099         | 2.25 | 1.1  | 293         | 32156         | 2.70 | 1.2  | 1.16           | 0.45 *                  | 0.39           |
| AMERICAN INDIAN           | 139         | 22906         | 1.77 | 0.9  | 173         | 17744         | 2.30 | 1.1  | 1.04           | 0.52 *                  | 0.50           |
| MEXICAN-AMERICAN          | 402         | 54034         | 1.42 | 0.7  | 1502        | 81619         | 1.78 | 0.9  | 0.88           | 0.36 *                  | 0.41           |
| PUERTO RICAN              | 63          | 6421          | 1.56 | 0.9  | 241         | 14240         | 1.69 | 0.8  | 0.85           | 0.14                    | 0.16           |
| OTHER HISPANIC            | 84          | 13382         | 2.04 | 1.0  | 805         | 54739         | 2.19 | 1.0  | 1.03           | 0.16                    | 0.15           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 12848       | 2371440       | 2.18 | 1.0  | 21013       | 2359113       | 2.37 | 1.0  | 1.02           | 0.18 *                  | 0.18           |
| PRIVATE                   | 63          | 15105         | 2.42 | 1.2  | 792         | 91288         | 3.07 | 1.2  | 1.19           | 0.65 *                  | 0.55           |
| CATHOLIC                  | 953         | 219202        | 2.30 | 1.0  | 2383        | 180810        | 2.59 | 1.0  | 1.03           | 0.29 *                  | 0.28           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3182        | 722571        | 2.19 | 1.0  | 4891        | 604693        | 2.45 | 1.1  | 1.04           | 0.26 *                  | 0.25           |
| NORTH CENTRAL             | 4036        | 820416        | 2.19 | 1.0  | 7114        | 770565        | 2.40 | 1.0  | 0.99           | 0.21 *                  | 0.21           |
| SOUTH                     | 4622        | 678145        | 2.10 | 1.0  | 7851        | 788613        | 2.29 | 1.1  | 1.05           | 0.19 *                  | 0.18           |
| WEST                      | 2534        | 457736        | 2.30 | 1.0  | 4332        | 467339        | 2.57 | 1.1  | 1.05           | 0.27 *                  | 0.25           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 4747        | 823315        | 2.03 | 1.0  | 8639        | 944018        | 2.27 | 1.0  | 0.97           | 0.24 *                  | 0.25           |
| ACADEMIC                  | 6308        | 1299971       | 2.43 | 1.1  | 9566        | 1039352       | 2.74 | 1.1  | 1.08           | 0.30 *                  | 0.28           |
| VOCATIONAL                | 3318        | 555279        | 1.85 | 0.9  | 5696        | 614860        | 2.08 | 0.9  | 0.89           | 0.24 *                  | 0.27           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 3903        | 687569        | 2.15 | 1.0  | 5321        | 506744        | 2.34 | 1.0  | 1.02           | 0.19 *                  | 0.18           |
| SUBURBAN                  | 7082        | 1394279       | 2.28 | 1.0  | 11816       | 1314401       | 2.51 | 1.1  | 1.05           | 0.22 *                  | 0.21           |
| RURAL                     | 3182        | 561393        | 1.99 | 1.0  | 7051        | 810066        | 2.29 | 1.0  | 0.99           | 0.30 *                  | 0.30           |

\*SIGNIFICANT AT .05 OR LESS

TABLE 3-5

NUMBER OF "STUDY AIDS" AVAILABLE IN HOME  
(COUNT OF RESPONSES TO: PLACE FOR STUDY; DAILY NEWSPAPER; ENCYCLOPEDIA/REFERENCE BOOKS; TYPEWRITER)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16412       | 3002567       | 3.21 | 0.9  | 26191       | 2830358       | 2.97 | 1.0  | 0.94           | -0.23 *                 | -0.25          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8096        | 1487778       | 3.19 | 0.9  | 12376       | 1343612       | 3.01 | 1.0  | 0.96           | -0.19 *                 | -0.20          |
| FEMALE             | 8312        | 1514024       | 3.22 | 0.9  | 13728       | 1478552       | 2.94 | 0.9  | 0.92           | -0.28 *                 | -0.30          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4717        | 727933        | 2.54 | 1.1  | 7720        | 742694        | 2.29 | 1.1  | 1.06           | -0.24 *                 | -0.23          |
| MIDDLE             | 7829        | 1539145       | 3.31 | 0.8  | 12170       | 1357352       | 3.10 | 0.8  | 0.80           | -0.22 *                 | -0.27          |
| HIGH               | 3832        | 729451        | 3.64 | 0.6  | 5934        | 694330        | 3.47 | 0.7  | 0.62           | -0.18 *                 | -0.29          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12729       | 2506111       | 3.28 | 0.9  | 19000       | 2261452       | 3.03 | 0.9  | 0.89           | -0.25 *                 | -0.28          |
| BLACK              | 2046        | 247777        | 2.75 | 1.1  | 3229        | 293820        | 2.71 | 1.1  | 1.07           | -0.03                   | -0.03          |
| ASIAN-AMERICAN     | 192         | 27663         | 3.33 | 0.8  | 349         | 38092         | 3.05 | 1.0  | 0.97           | -0.28 *                 | -0.29          |
| AMERICAN INDIAN    | 185         | 30932         | 2.99 | 1.0  | 198         | 20286         | 2.66 | 1.1  | 1.07           | -0.33                   | -0.31          |
| MEXICAN-AMERICAN   | 541         | 71223         | 2.60 | 1.2  | 1741        | 93325         | 2.65 | 1.0  | 1.07           | 0.05                    | 0.05           |
| PUERTO RICAN       | 91          | 9196          | 2.48 | 1.2  | 284         | 16362         | 2.51 | 1.2  | 1.25           | 0.03                    | 0.02           |
| OTHER HISPANIC     | 114         | 17540         | 2.88 | 1.1  | 889         | 58928         | 2.74 | 1.1  | 1.08           | -0.14                   | -0.13          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14708       | 2663708       | 3.19 | 0.9  | 22802       | 2537784       | 2.93 | 1.0  | 0.95           | -0.25 *                 | -0.26          |
| PRIVATE            | 66          | 16256         | 3.53 | 0.7  | 847         | 101094        | 3.28 | 0.8  | 0.82           | -0.25                   | -0.30          |
| CATHOLIC           | 1022        | 234707        | 3.46 | 0.7  | 2542        | 191480        | 3.29 | 0.7  | 0.73           | -0.17 *                 | -0.23          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3552        | 793263        | 3.38 | 0.8  | 5399        | 663197        | 3.11 | 0.9  | 0.85           | -0.27 *                 | -0.32          |
| NORTH CENTRAL      | 4514        | 908789        | 3.19 | 0.9  | 7481        | 810034        | 3.01 | 0.9  | 0.90           | -0.19 *                 | -0.21          |
| SOUTH              | 5424        | 783599        | 3.05 | 1.0  | 8481        | 837239        | 2.84 | 1.0  | 1.02           | -0.22 *                 | -0.21          |
| WEST               | 2922        | 516916        | 3.19 | 0.9  | 4830        | 519888        | 2.96 | 1.0  | 0.97           | -0.23 *                 | -0.24          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5564        | 951961        | 3.04 | 1.0  | 9485        | 1026439       | 2.85 | 1.0  | 0.99           | -0.19 *                 | -0.20          |
| ACADEMIC           | 6735        | 1378439       | 3.39 | 0.8  | 10089       | 1093825       | 3.21 | 0.8  | 0.81           | -0.18 *                 | -0.23          |
| VOCATIONAL         | 4112        | 671864        | 3.05 | 1.0  | 6254        | 670666        | 2.79 | 1.0  | 1.00           | -0.26 *                 | -0.26          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4541        | 784249        | 3.22 | 0.9  | 5926        | 557297        | 2.99 | 1.0  | 0.93           | -0.23 *                 | -0.25          |
| SUBURBAN           | 7932        | 1534602       | 3.30 | 0.8  | 12678       | 1402331       | 3.04 | 0.9  | 0.90           | -0.25 *                 | -0.28          |
| RURAL              | 3661        | 636609        | 2.97 | 1.0  | 7587        | 870731        | 2.84 | 1.0  | 1.01           | -0.13 *                 | -0.13          |

\*SIGNIFICANT AT .05 OR LESS



TABLE 3-6

HOW MUCH SCHOOLING DOES YOUR MOTHER OR FEMALE GUARDIAN WANT YOU TO GET  
(1=LESS THAN HIGH SCHOOL; 5=GRADUATE/PROFESSIONAL SCHOOL)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 13294       | 2455320       | 3.63 | 0.8  | 22225       | 2399707       | 3.73 | 1.0  | 0.91           | 0.11 *                  | 0.12           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 6425        | 1198604       | 3.75 | 0.8  | 10315       | 1116270       | 3.76 | 1.0  | 0.92           | 0.01                    | 0.01           |
| FEMALE                    | 6866        | 1256192       | 3.51 | 0.8  | 11405       | 1239390       | 3.72 | 0.9  | 0.89           | 0.21 *                  | 0.23           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 3544        | 547247        | 3.29 | 0.8  | 6236        | 599167        | 3.37 | 1.0  | 0.96           | 0.08 *                  | 0.08           |
| MIDDLE                    | 6366        | 1261711       | 3.55 | 0.8  | 10334       | 1147887       | 3.67 | 0.9  | 0.87           | 0.11 *                  | 0.13           |
| HIGH                      | 3371        | 643907        | 4.06 | 0.7  | 5310        | 619924        | 4.22 | 0.7  | 0.72           | 0.16 *                  | 0.22           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 10632       | 2097629       | 3.63 | 0.8  | 16002       | 1903285       | 3.70 | 0.9  | 0.89           | 0.07 *                  | 0.08           |
| BLACK                     | 1484        | 179449        | 3.72 | 0.8  | 2826        | 250970        | 3.96 | 1.0  | 0.93           | 0.25 *                  | 0.27           |
| ASIAN-AMERICAN            | 156         | 22408         | 4.02 | 0.8  | 312         | 33585         | 4.29 | 0.8  | 0.80           | 0.27 *                  | 0.34           |
| AMERICAN INDIAN           | 132         | 22150         | 3.20 | 0.9  | 160         | 16739         | 3.74 | 1.0  | 0.96           | 0.54 *                  | 0.56           |
| MEXICAN-AMERICAN          | 406         | 53819         | 3.52 | 0.8  | 1445        | 76815         | 3.58 | 1.0  | 0.97           | 0.06                    | 0.06           |
| PUERTO RICAN              | 67          | 6739          | 3.63 | 0.8  | 240         | 13131         | 3.66 | 0.9  | 0.91           | 0.03                    | 0.03           |
| OTHER HISPANIC            | 85          | 13429         | 3.51 | 0.9  | 762         | 50679         | 3.70 | 1.1  | 1.05           | 0.19                    | 0.18           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 11904       | 2174121       | 3.61 | 0.8  | 19253       | 2150435       | 3.70 | 1.0  | 0.91           | 0.08 *                  | 0.09           |
| PRIVATE                   | 60          | 14404         | 3.75 | 0.7  | 739         | 83161         | 4.12 | 0.8  | 0.83           | 0.37 *                  | 0.44           |
| CATHOLIC                  | 872         | 201309        | 3.77 | 0.8  | 2233        | 166110        | 3.98 | 0.9  | 0.84           | 0.20 *                  | 0.24           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 2911        | 655534        | 3.63 | 0.8  | 4532        | 557622        | 3.77 | 1.0  | 0.93           | 0.14 *                  | 0.15           |
| NORTH CENTRAL             | 3654        | 740465        | 3.57 | 0.8  | 6415        | 693494        | 3.61 | 0.9  | 0.89           | 0.04                    | 0.05           |
| SOUTH                     | 4395        | 642139        | 3.67 | 0.8  | 7321        | 723915        | 3.77 | 1.0  | 0.92           | 0.10 *                  | 0.11           |
| WEST                      | 2334        | 417182        | 3.66 | 0.8  | 3957        | 424676        | 3.82 | 0.9  | 0.87           | 0.16 *                  | 0.19           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 4356        | 746427        | 3.39 | 0.8  | 7815        | 847685        | 3.55 | 1.0  | 0.90           | 0.15 *                  | 0.17           |
| ACADEMIC                  | 5914        | 1212548       | 4.00 | 0.7  | 8978        | 971095        | 4.17 | 0.8  | 0.75           | 0.17 *                  | 0.23           |
| VOCATIONAL                | 3023        | 496042        | 3.08 | 0.7  | 5153        | 549800        | 3.26 | 0.9  | 0.85           | 0.19 *                  | 0.22           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 3644        | 636392        | 3.69 | 0.8  | 5003        | 471608        | 3.85 | 1.0  | 0.90           | 0.16 *                  | 0.18           |
| SUBURBAN                  | 6563        | 1280168       | 3.69 | 0.8  | 10807       | 1195851       | 3.79 | 1.0  | 0.90           | 0.10 *                  | 0.11           |
| RURAL                     | 2906        | 508396        | 3.40 | 0.8  | 6415        | 732248        | 3.57 | 1.0  | 0.91           | 0.16 *                  | 0.18           |

\*SIGNIFICANT AT .05 OR LESS

obtained. These changing parental expectations for the 1972 and 1980 seniors' educations were differential, however, affecting females much more than males, high SES students more than low SES students, and non-Hispanic minority students more than White or Hispanic students.

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## CHAPTER IV

### THE SCHOOLS, EDUCATIONAL PROGRAMS, AND LEARNING CONDITIONS

This chapter describes how schools, educational programs, and learning conditions changed between 1972 and 1980. Four areas are examined: 1) student body characteristics, 2) staff characteristics, 3) educational programs and teaching methods, and 4) students' evaluations of school facilities and their educational experiences. Data on student and staff characteristics and educational programs are drawn from the school questionnaires; those on teaching methods and student evaluation come from the student questionnaire. Schools are grouped by four classification variables: 1) average SES of their students, 2) school type, 3) geographic region, and 4) community type.

#### A. STUDENT BODY CHARACTERISTICS

Students' achievement, attitudes and behaviors are influenced by the environment of the schools they attend as well as by their personal backgrounds. The 1972 and 1980 school questionnaires contain five measures of student body composition: 1) racial/ethnic composition, 2) student absenteeism and dropout rates, 3) percentage of college-bound students, 4) percentage of students in the academic track, and 5) the percentage of students classified as disadvantaged or handicapped.

##### 1. Racial/Ethnic Composition

Table 4-1 shows the percentage of schools that were predominately White, predominately non-White, and integrated in 1972 and 1980. In 1972, 52.8 percent of the schools were 95 to 100 percent White, 36.3 percent were 50 to 94 percent White, while 10.9 percent were less than 50 percent White. In 1980, the percentages were 53.5, 35.0 and 11.5, respectively. These figures vary widely when schools are grouped by student SES, school type, geographic region and community type, however. For example, in 1972, 22.7 percent of the schools that had a low SES student body were predominately non-White compared to 6.8 percent and 1.5 percent for medium and high SES schools. A larger percentage of schools in the South and in urban communities also were non-White. The percentage of predominately minority schools and predominately White schools remained unchanged, in general, between 1972 and 1980. Catholic schools provide the exception to this statement. The percentage of Catholic schools that were 50 to 94 percent White nearly doubled between 1972 and 1980, from 33.5 percent to 57.7 percent, while the percentage that were predominately White dropped from 59.9 percent to 35.7 percent.

Tables 4-2 and 4-3 show the percentage of schools that have varying concentrations of Black and Hispanic students. Between 1972 and 1980, the percentage of schools that were majority Black increased slightly, while the percentage with enrollments that were only 0 to 4 percent Black

TABLE 4-1

## PERCENT OF CURRENT STUDENTS WHO ARE WHITE

|                          | NLS 1972                |                    |                     |                     |                      | HSB 1980                |                    |                     |                     |                      |
|--------------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-49% | %<br>WITH<br>50-79% | %<br>WITH<br>80-94% | %<br>WITH<br>95-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-49% | %<br>WITH<br>50-79% | %<br>WITH<br>80-94% | %<br>WITH<br>95-100% |
| TOTAL                    | 1237                    | 10.9               | 14.5                | 21.8                | 52.8                 | 959                     | 11.5               | 15.2                | 19.8                | 53.5                 |
| AVERAGE SES OF STUDENTS: |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| LOW                      | 306                     | 22.7               | 24.4                | 22.0                | 30.9                 | 225                     | 38.0               | 11.5                | 13.7                | 36.9                 |
| MIDDLE                   | 613                     | 6.8                | 11.1                | 17.2                | 64.8                 | 472                     | 3.6                | 20.0                | 16.3                | 60.1                 |
| HIGH                     | 318                     | 1.5                | 6.6                 | 33.8                | 58.1                 | 239                     | 1.2                | 9.2                 | 33.1                | 56.5                 |
| SCHOOL TYPE:             |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| PUBLIC                   | 1109                    | 11.4               | 15.6                | 20.5                | 52.5                 | 841                     | 12.6               | 15.9                | 18.4                | 53.1                 |
| PRIVATE                  | 11                      | 0.0                | 2.4                 | 46.8                | 50.7                 | 37                      | 8.7                | 6.3                 | 20.4                | 64.6                 |
| CATHOLIC                 | 71                      | 6.6                | 10.8                | 22.7                | 59.9                 | 81                      | 6.7                | 24.8                | 32.9                | 35.7                 |
| GEOGRAPHIC REGION:       |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| NORTHEAST                | 252                     | 4.4                | 6.0                 | 18.9                | 70.6                 | 205                     | 5.8                | 10.9                | 24.2                | 59.1                 |
| NORTH CENTRAL            | 321                     | 5.8                | 3.1                 | 15.6                | 75.5                 | 270                     | 3.3                | 4.1                 | 12.1                | 80.5                 |
| SOUTH                    | 460                     | 20.4               | 21.6                | 29.6                | 28.4                 | 290                     | 20.1               | 27.1                | 20.4                | 32.4                 |
| WEST                     | 204                     | 8.4                | 32.8                | 20.5                | 38.2                 | 194                     | 14.2               | 15.2                | 26.5                | 44.1                 |
| COMMUNITY TYPE:          |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| URBAN                    | 376                     | 24.4               | 20.2                | 25.0                | 30.4                 | 242                     | 26.9               | 20.2                | 21.9                | 30.9                 |
| SUBURBAN                 | 617                     | 7.5                | 13.3                | 27.1                | 52.1                 | 462                     | 6.2                | 16.6                | 27.9                | 49.3                 |
| RURAL                    | 237                     | 9.7                | 13.9                | 16.0                | 60.4                 | 255                     | 9.8                | 12.2                | 12.9                | 65.1                 |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-2

PERCENT OF CURRENT STUDENTS WHO ARE BLACK

|                          | NLS 1972                |                   |                    |                     |                      | HSB 1980                |                   |                    |                     |                      |
|--------------------------|-------------------------|-------------------|--------------------|---------------------|----------------------|-------------------------|-------------------|--------------------|---------------------|----------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-4% | %<br>WITH<br>5-19% | %<br>WITH<br>20-49% | %<br>WITH<br>50-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-4% | %<br>WITH<br>5-19% | %<br>WITH<br>20-49% | %<br>WITH<br>50-100% |
| TOTAL                    | 1237                    | 68.0              | 15.8               | 9.6                 | 6.6                  | 958                     | 68.4              | 14.2               | 9.8                 | 7.7                  |
| AVERAGE SES OF STUDENTS: |                         |                   |                    |                     |                      |                         |                   |                    |                     |                      |
| LOW                      | 306                     | 47.3              | 21.6               | 14.8                | 16.3                 | 225                     | 54.8              | 8.6                | 10.4                | 26.2                 |
| MIDDLE                   | 613                     | 76.5              | 12.6               | 8.3                 | 2.6                  | 472                     | 72.5              | 13.5               | 12.7                | 1.4                  |
| HIGH                     | 318                     | 81.0              | 14.5               | 4.2                 | 0.3                  | 238                     | 72.9              | 23.2               | 3.4                 | 0.5                  |
| SCHOOL TYPE:             |                         |                   |                    |                     |                      |                         |                   |                    |                     |                      |
| PUBLIC                   | 1109                    | 66.5              | 16.4               | 10.3                | 6.8                  | 840                     | 67.4              | 13.0               | 11.0                | 8.6                  |
| PRIVATE                  | 11                      | 92.0              | 8.0                | 0.0                 | 0.0                  | 37                      | 77.1              | 12.5               | 5.2                 | 5.2                  |
| CATHOLIC                 | 71                      | 78.4              | 12.7               | 6.7                 | 2.3                  | 81                      | 60.7              | 29.6               | 6.4                 | 3.3                  |
| GEOGRAPHIC REGION:       |                         |                   |                    |                     |                      |                         |                   |                    |                     |                      |
| NORTHEAST                | 252                     | 78.4              | 13.0               | 4.6                 | 3.1                  | 205                     | 67.2              | 19.8               | 9.8                 | 3.2                  |
| NORTH CENTRAL            | 321                     | 84.6              | 10.6               | 2.2                 | 2.6                  | 270                     | 87.6              | 7.1                | 2.5                 | 2.8                  |
| SOUTH                    | 460                     | 37.0              | 25.4               | 22.8                | 14.8                 | 289                     | 46.6              | 18.6               | 18.9                | 15.9                 |
| WEST                     | 204                     | 89.1              | 7.8                | 2.2                 | 1.0                  | 194                     | 77.6              | 12.6               | 5.2                 | 4.7                  |
| COMMUNITY TYPE:          |                         |                   |                    |                     |                      |                         |                   |                    |                     |                      |
| URBAN                    | 376                     | 43.9              | 21.9               | 18.3                | 15.9                 | 242                     | 44.9              | 19.3               | 17.8                | 18.0                 |
| SUBURBAN                 | 617                     | 67.0              | 18.7               | 9.9                 | 4.4                  | 461                     | 65.8              | 20.8               | 9.5                 | 3.9                  |
| RURAL                    | 237                     | 76.5              | 11.3               | 6.7                 | 5.5                  | 255                     | 79.0              | 7.3                | 7.0                 | 6.7                  |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA



TABLE 4-3

PERCENT OF CURRENT STUDENTS WHO ARE HISPANIC

|                          | NLS 1972                |                   |                    |                     |                      | HSB 1980                |                   |                    |                     |                      |
|--------------------------|-------------------------|-------------------|--------------------|---------------------|----------------------|-------------------------|-------------------|--------------------|---------------------|----------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-4% | %<br>WITH<br>5-19% | %<br>WITH<br>20-49% | %<br>WITH<br>50-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-4% | %<br>WITH<br>5-19% | %<br>WITH<br>20-49% | %<br>WITH<br>50-100% |
| TOTAL                    | 1237                    | 87.0              | 9.1                | 2.7                 | 1.3                  | 959                     | 81.8              | 11.8               | 4.0                 | 2.4                  |
| AVERAGE SES OF STUDENTS: |                         |                   |                    |                     |                      |                         |                   |                    |                     |                      |
| LOW                      | 306                     | 88.2              | 5.6                | 3.2                 | 3.0                  | 227                     | 74.8              | 11.6               | 6.4                 | 7.2                  |
| MIDDLE                   | 613                     | 88.0              | 8.7                | 2.8                 | 0.5                  | 471                     | 85.5              | 9.3                | 3.8                 | 1.4                  |
| HIGH                     | 318                     | 81.9              | 16.4               | 1.5                 | 0.2                  | 239                     | 84.4              | 12.5               | 2.6                 | 0.5                  |
| SCHOOL TYPE:             |                         |                   |                    |                     |                      |                         |                   |                    |                     |                      |
| PUBLIC                   | 1109                    | 87.4              | 8.5                | 2.7                 | 1.4                  | 841                     | 83.6              | 10.2               | 4.0                 | 2.2                  |
| PRIVATE                  | 11                      | 90.6              | 9.4                | 0.0                 | 0.0                  | 37                      | 79.7              | 16.7               | 0.0                 | 3.5                  |
| CATHOLIC                 | 71                      | 81.7              | 13.7               | 4.3                 | 0.4                  | 81                      | 68.0              | 18.3               | 11.1                | 2.6                  |
| GEOGRAPHIC REGION:       |                         |                   |                    |                     |                      |                         |                   |                    |                     |                      |
| NORTHEAST                | 252                     | 89.7              | 8.8                | 1.5                 | 0.1                  | 205                     | 88.0              | 7.9                | 2.9                 | 1.2                  |
| NORTH CENTRAL            | 321                     | 97.7              | 2.1                | 0.1                 | 0.1                  | 267                     | 94.8              | 3.6                | 1.6                 | 0.0                  |
| SOUTH                    | 460                     | 88.6              | 8.2                | 1.4                 | 1.8                  | 292                     | 83.6              | 9.9                | 4.1                 | 2.4                  |
| WEST                     | 204                     | 58.6              | 25.4               | 12.2                | 3.8                  | 195                     | 54.4              | 30.5               | 8.1                 | 7.0                  |
| COMMUNITY TYPE:          |                         |                   |                    |                     |                      |                         |                   |                    |                     |                      |
| URBAN                    | 376                     | 78.6              | 14.5               | 4.5                 | 2.4                  | 241                     | 63.8              | 24.9               | 5.6                 | 5.7                  |
| SUBURBAN                 | 617                     | 84.8              | 10.7               | 3.6                 | 1.0                  | 460                     | 80.9              | 12.8               | 4.6                 | 1.6                  |
| RURAL                    | 237                     | 91.6              | 5.8                | 1.4                 | 1.2                  | 258                     | 89.1              | 6.2                | 2.9                 | 1.7                  |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

remained constant (with the exception of Catholic schools and schools in the Northeast and West). The percentage of schools that were predominately Hispanic increased during this period across every classification variable except in the North Central region. Once again, the Catholic schools appeared to have absorbed Hispanic students to a greater extent than non-Catholic schools. The percentage of Catholic schools with more than 5 percent Hispanic enrollment grew from 18.3 percent to 32.0 percent.

## 2. Student Absenteeism and Dropout Rates

In Table 4-4, schools are grouped by approximate average daily attendance rates. Between 1972 and 1980, the percentage of schools with low absenteeism (attendance rates of 96 to 100 percent) showed a moderate decline, while those with high absenteeism (attendance rates of 0 to 84 percent) remained constant. This finding generally holds across all four classification variables. The sharpest decrease in the percentage of schools with low absenteeism rates occurred in urban areas, in Catholic schools, in the Northeast and North Central regions, and in low and middle SES schools.

Dropout rates are measured as the percent of students who entered the 10th grade but dropped out before graduation, as reported by the schools. Table 4-5 shows a general increase in dropouts. The percentage of schools with a dropout rate of 10 to 19 percent increased from 13.4 percent to 20.4 percent, and those with a rate of 20 percent or more grew from 3.6 percent to 9.6 percent. Increases in this latter category were most evident in the South and West, in the suburbs, among public schools, and in schools with a low SES student body. Middle SES and rural schools showed a large increase between 1972 and 1980 in the percentage of schools with a 5 to 19 percent dropout rate.

## 3. College-Bound Students

Changes in the concentration of college-bound students (both 2-year and 4-year) between 1972 and 1980 are shown in Table 4-6. During this period the percentage of schools with a preponderance (70 percent or more) of college-bound students increased from 9.3 percent to 18.8 percent. Large increases in the number of schools with high percentages of college-bound students took place in the nonpublic schools and among high SES schools. Students in middle SES schools, however, showed slightly less interest in college attendance.

## 4. High School Curriculum

Data in Chapter III showed that between 1972 and 1980 substantially more high school seniors chose to enroll in general education rather than academic/college preparatory programs. Table 4-7 shows the percentage of schools with different concentrations of students in the academic program in both of these years. There was growth in both the percentage of schools falling in the lowest (0 to 29 percent) and the highest (70 to

TABLE 4-4

APPROXIMATE AVERAGE DAILY PERCENTAGE ATTENDANCE

|                          | NLS 1972                |                      |                     |                     |                     | HSB 1980                |                      |                     |                     |                     |
|--------------------------|-------------------------|----------------------|---------------------|---------------------|---------------------|-------------------------|----------------------|---------------------|---------------------|---------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>96-100% | %<br>WITH<br>90-95% | %<br>WITH<br>85-89% | %<br>WITH<br>80-84% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>96-100% | %<br>WITH<br>90-95% | %<br>WITH<br>85-89% | %<br>WITH<br>80-84% |
| TOTAL                    | 1251                    | 22.5                 | 57.2                | 14.6                | 5.7                 | 958                     | 17.1                 | 67.5                | 9.6                 | 5.8                 |
| AVERAGE SES OF STUDENTS: |                         |                      |                     |                     |                     |                         |                      |                     |                     |                     |
| LOW                      | 307                     | 16.4                 | 49.6                | 25.5                | 8.5                 | 227                     | 10.2                 | 62.7                | 11.1                | 15.9                |
| MIDDLE                   | 621                     | 24.7                 | 63.2                | 9.3                 | 2.8                 | 471                     | 17.9                 | 71.0                | 8.7                 | 2.4                 |
| HIGH                     | 323                     | 26.6                 | 53.4                | 10.8                | 9.1                 | 237                     | 24.3                 | 67.5                | 7.6                 | 0.5                 |
| SCHOOL TYPE:             |                         |                      |                     |                     |                     |                         |                      |                     |                     |                     |
| PUBLIC                   | 1120                    | 18.5                 | 60.3                | 14.9                | 6.3                 | 840                     | 14.9                 | 69.3                | 9.3                 | 6.5                 |
| PRIVATE                  | 12                      | 48.0                 | 52.0                | 0.0                 | 0.0                 | 37                      | 20.2                 | 59.0                | 15.6                | 5.2                 |
| CATHOLIC                 | 73                      | 53.4                 | 37.4                | 7.7                 | 1.5                 | 81                      | 32.7                 | 65.7                | 1.3                 | 0.2                 |
| GEOGRAPHIC REGION:       |                         |                      |                     |                     |                     |                         |                      |                     |                     |                     |
| NORTHEAST                | 262                     | 27.8                 | 49.8                | 17.9                | 4.5                 | 203                     | 14.5                 | 68.2                | 9.8                 | 7.5                 |
| NORTH CENTRAL            | 321                     | 31.9                 | 59.6                | 5.7                 | 2.8                 | 274                     | 23.3                 | 67.9                | 4.4                 | 4.4                 |
| SOUTH                    | 459                     | 13.4                 | 67.1                | 14.0                | 5.5                 | 293                     | 15.0                 | 72.0                | 10.5                | 2.6                 |
| WEST                     | 209                     | 16.8                 | 41.0                | 28.8                | 13.4                | 188                     | 13.1                 | 58.7                | 16.2                | 11.9                |
| COMMUNITY TYPE:          |                         |                      |                     |                     |                     |                         |                      |                     |                     |                     |
| URBAN                    | 382                     | 30.7                 | 34.5                | 16.5                | 18.4                | 242                     | 8.0                  | 51.0                | 25.9                | 15.2                |
| SUBURBAN                 | 623                     | 20.2                 | 61.3                | 13.2                | 5.3                 | 462                     | 17.7                 | 69.4                | 7.2                 | 5.6                 |
| RURAL                    | 239                     | 21.5                 | 61.7                | 15.0                | 1.8                 | 254                     | 20.1                 | 72.1                | 5.4                 | 2.4                 |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

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TABLE 4-5

PERCENT OF STUDENTS WHO ENTER THE 10TH GRADE BUT DROP OUT BEFORE GRADUATION

|                          | NLS 1972                |                   |                   |                     |                      | HSB 1980                |                   |                   |                     |                      |
|--------------------------|-------------------------|-------------------|-------------------|---------------------|----------------------|-------------------------|-------------------|-------------------|---------------------|----------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-4% | %<br>WITH<br>5-9% | %<br>WITH<br>10-19% | %<br>WITH<br>20-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-4% | %<br>WITH<br>5-9% | %<br>WITH<br>10-19% | %<br>WITH<br>20-100% |
| TOTAL                    | 1192                    | 62.2              | 20.8              | 13.4                | 3.6                  | 956                     | 46.5              | 23.5              | 20.4                | 9.6                  |
| AVERAGE SES OF STUDENTS: |                         |                   |                   |                     |                      |                         |                   |                   |                     |                      |
| LOW                      | 297                     | 38.8              | 32.0              | 22.9                | 6.3                  | 225                     | 36.3              | 13.4              | 30.3                | 19.9                 |
| MIDDLE                   | 592                     | 71.9              | 15.1              | 9.8                 | 3.1                  | 477                     | 40.8              | 28.3              | 22.3                | 8.6                  |
| HIGH                     | 303                     | 78.3              | 15.9              | 5.6                 | 0.1                  | 235                     | 72.3              | 19.4              | 6.8                 | 1.5                  |
| SCHOOL TYPE:             |                         |                   |                   |                     |                      |                         |                   |                   |                     |                      |
| PUBLIC                   | 1063                    | 58.2              | 23.3              | 15.0                | 3.6                  | 839                     | 36.4              | 26.1              | 25.4                | 12.1                 |
| PRIVATE                  | 12                      | 96.1              | 2.4               | 1.5                 | 0.0                  | 34                      | 81.9              | 16.8              | 1.3                 | 0.0                  |
| CATHOLIC                 | 71                      | 97.7              | 0.5               | 1.8                 | 0.0                  | 83                      | 90.6              | 8.2               | 1.2                 | 0.0                  |
| GEOGRAPHIC REGION:       |                         |                   |                   |                     |                      |                         |                   |                   |                     |                      |
| NORTHEAST                | 247                     | 73.0              | 19.8              | 5.1                 | 2.2                  | 200                     | 52.2              | 23.6              | 19.8                | 4.5                  |
| NORTH CENTRAL            | 312                     | 78.8              | 10.8              | 8.1                 | 2.3                  | 271                     | 49.3              | 27.4              | 19.2                | 4.0                  |
| SOUTH                    | 440                     | 46.6              | 21.4              | 26.4                | 5.5                  | 299                     | 42.9              | 19.3              | 24.0                | 13.7                 |
| WEST                     | 193                     | 49.6              | 40.9              | 5.7                 | 3.8                  | 186                     | 43.2              | 24.5              | 16.0                | 16.2                 |
| COMMUNITY TYPE:          |                         |                   |                   |                     |                      |                         |                   |                   |                     |                      |
| URBAN                    | 355                     | 61.0              | 13.9              | 13.5                | 11.6                 | 235                     | 54.5              | 13.9              | 16.6                | 15.0                 |
| SUBURBAN                 | 596                     | 62.8              | 23.0              | 12.3                | 1.9                  | 458                     | 46.7              | 26.9              | 15.8                | 10.6                 |
| RURAL                    | 234                     | 61.8              | 21.2              | 14.4                | 2.6                  | 263                     | 43.8              | 24.1              | 24.9                | 7.1                  |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-6

PERCENT OF LAST YEAR'S GRADUATES NOW ENROLLED IN A REGULAR TWO-YEAR OR FOUR-YEAR COLLEGE

|                          | NLS 1972                |                    |                     |                     |                      | HSB 1980                |                    |                     |                     |                      |
|--------------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-29% | %<br>WITH<br>30-49% | %<br>WITH<br>50-69% | %<br>WITH<br>70-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-29% | %<br>WITH<br>30-49% | %<br>WITH<br>50-69% | %<br>WITH<br>70-100% |
| TOTAL                    | 1254                    | 30.6               | 34.9                | 25.3                | 9.3                  | 973                     | 27.2               | 32.9                | 21.1                | 18.8                 |
| AVERAGE SES OF STUDENTS: |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| LOW                      | 310                     | 58.1               | 30.9                | 9.7                 | 1.4                  | 232                     | 54.3               | 30.5                | 12.8                | 2.3                  |
| MIDDLE                   | 623                     | 19.9               | 43.2                | 30.2                | 6.7                  | 488                     | 24.7               | 43.5                | 24.7                | 7.2                  |
| HIGH                     | 321                     | 11.4               | 19.0                | 39.3                | 30.4                 | 240                     | 4.4                | 8.4                 | 20.7                | 66.5                 |
| SCHOOL TYPE:             |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| PUBLIC                   | 1122                    | 33.1               | 38.2                | 22.8                | 5.9                  | 857                     | 32.1               | 38.1                | 22.3                | 7.5                  |
| PRIVATE                  | 12                      | 0.0                | 15.5                | 55.2                | 29.3                 | 33                      | 13.1               | 12.4                | 12.8                | 61.6                 |
| CATHOLIC                 | 73                      | 9.4                | 18.1                | 38.3                | 34.2                 | 83                      | 0.0                | 12.5                | 21.6                | 65.9                 |
| GEOGRAPHIC REGION:       |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| NORTHEAST                | 262                     | 20.1               | 34.3                | 27.3                | 18.3                 | 208                     | 15.9               | 29.3                | 23.2                | 31.7                 |
| NORTH CENTRAL            | 326                     | 24.8               | 43.3                | 27.0                | 4.9                  | 275                     | 19.8               | 44.5                | 23.3                | 12.4                 |
| SOUTH                    | 461                     | 39.0               | 29.9                | 21.8                | 9.3                  | 298                     | 35.6               | 27.3                | 18.0                | 19.1                 |
| WEST                     | 205                     | 37.2               | 29.6                | 26.9                | 6.3                  | 192                     | 36.1               | 26.3                | 20.9                | 16.7                 |
| COMMUNITY TYPE:          |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| URBAN                    | 381                     | 21.8               | 29.5                | 29.3                | 19.4                 | 241                     | 20.8               | 26.1                | 14.5                | 38.6                 |
| SUBURBAN                 | 625                     | 17.7               | 36.9                | 31.7                | 13.6                 | 469                     | 23.0               | 31.1                | 22.1                | 23.8                 |
| RURAL                    | 241                     | 45.1               | 34.8                | 18.0                | 2.1                  | 263                     | 32.5               | 36.5                | 22.4                | 8.7                  |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA



TABLE 4-7

## PERCENT ENROLLED IN ACADEMIC OR COLLEGE PREPARATORY CURRICULUM

|                          | NLS 1972                |                    |                     |                     |                      | HSB 1980                |                    |                     |                     |                      |
|--------------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-29% | %<br>WITH<br>30-49% | %<br>WITH<br>50-69% | %<br>WITH<br>70-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-29% | %<br>WITH<br>30-49% | %<br>WITH<br>50-69% | %<br>WITH<br>70-100% |
| TOTAL                    | 1196                    | 37.3               | 32.2                | 17.8                | 12.7                 | 892                     | 40.9               | 21.7                | 16.5                | 21.0                 |
| AVERAGE SES OF STUDENTS: |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| LOW                      | 299                     | 59.8               | 28.5                | 9.8                 | 1.9                  | 206                     | 67.5               | 20.8                | 5.9                 | 5.8                  |
| MIDDLE                   | 596                     | 30.6               | 39.0                | 18.5                | 12.0                 | 441                     | 44.8               | 26.7                | 18.5                | 10.0                 |
| HIGH                     | 301                     | 16.2               | 20.3                | 29.9                | 33.5                 | 226                     | 11.2               | 12.9                | 16.3                | 59.5                 |
| SCHOOL TYPE:             |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| PUBLIC                   | 1070                    | 41.1               | 34.6                | 16.5                | 7.8                  | 778                     | 49.7               | 26.6                | 15.5                | 8.3                  |
| PRIVATE                  | 12                      | 0.0                | 28.7                | 21.1                | 50.2                 | 35                      | 16.2               | 4.5                 | 25.7                | 53.7                 |
| CATHOLIC                 | 71                      | 8.3                | 16.7                | 31.0                | 43.9                 | 79                      | 4.3                | 7.3                 | 9.0                 | 79.5                 |
| GEOGRAPHIC REGION:       |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| NORTHEAST                | 241                     | 18.8               | 28.4                | 30.7                | 22.2                 | 191                     | 15.8               | 25.0                | 22.8                | 36.4                 |
| NORTH CENTRAL            | 316                     | 32.2               | 39.1                | 21.7                | 7.1                  | 250                     | 45.7               | 25.6                | 15.7                | 13.0                 |
| SOUTH                    | 443                     | 43.1               | 32.4                | 10.4                | 14.1                 | 275                     | 49.4               | 19.1                | 8.0                 | 23.5                 |
| WEST                     | 196                     | 57.7               | 23.0                | 10.1                | 9.2                  | 176                     | 39.9               | 16.9                | 28.0                | 15.1                 |
| COMMUNITY TYPE:          |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| URBAN                    | 357                     | 33.0               | 19.3                | 26.0                | 21.8                 | 218                     | 29.7               | 15.8                | 16.0                | 38.6                 |
| SUBURBAN                 | 601                     | 27.5               | 31.5                | 25.9                | 15.0                 | 428                     | 27.1               | 25.3                | 21.1                | 26.5                 |
| RURAL                    | 233                     | 47.7               | 37.3                | 7.4                 | 7.5                  | 246                     | 54.6               | 21.1                | 13.3                | 11.0                 |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

100 percent) categories. The shift away from academic programs took place primarily among low and middle SES schools, schools in the public sector, rural schools, and those in the North Central region. The largest increase in the number of schools with predominately academic programs (70 to 100 percent) occurred among high SES schools and in the Catholic sector.

Tables 4-8 and 4-9 present similar data for enrollments in general and vocational curricula. The percentage of schools with a low proportion (0 to 29 percent) of students in the general curriculum decreased sharply, from 55.3 percent of the 1972 schools to 35.6 percent of the 1980 schools. Schools with a high proportion (70 to 100 percent) of students in the general curriculum showed a corresponding increase from 14.2 percent of the 1972 schools to 31.3 percent of the 1980 schools. The increase toward higher proportions of students in the general curriculum took place primarily among low and middle SES schools, public and non-Catholic private schools, in schools outside of the Northeast, and in rural schools.

The percentage of schools with a high proportion (20 to 100 percent) of students in the vocational curriculum decreased moderately from 59 percent in 1972 to 48 percent in 1980, while schools with a low proportion (0 to 9 percent) of vocational curriculum students increased. The increase toward fewer students in the vocational curriculum was primarily among high SES schools, Catholic schools, schools in the West, and schools in urban areas.

##### 5. Students with Special Educational Needs

Tables 4-10 and 4-11 show the mean percent of students classified by schools as handicapped and as disadvantaged in 1972 and 1980. It is difficult to make direct comparisons because of the way in which the questions were worded in these two years. In 1972, only the schools that classified students were asked to report the number of students classified as handicapped or disadvantaged. The 1980 school questionnaire asked all schools to report the percent of students classified as handicapped or disadvantaged. As a result, the mean in 1972 does not include a large number of schools that may not have had any students with special educational needs.

One can examine differences across classification variables in 1980, however. In that year, an average of 5 percent of students in low SES schools were classified as handicapped compared to 2 percent in high SES schools, and 4 percent of students in public schools compared to 1 percent in Catholic schools. One finds even greater contrasts in the percent of students classified as disadvantaged. More than 30 percent of students in low SES schools were disadvantaged in 1980 compared to 3 percent in high SES schools. Large differences also existed between public and Catholic schools (17.3 percent versus 5 percent) and between the South and other regions of the country.

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TABLE 4-8

## PERCENT ENROLLED IN GENERAL CURRICULUM

|                                 | NLS 1972                |                    |                     |                     |                      | HSB 1980                |                    |                     |                     |                      |
|---------------------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|
|                                 | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-29% | %<br>WITH<br>30-49% | %<br>WITH<br>50-69% | %<br>WITH<br>70-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-29% | %<br>WITH<br>30-49% | %<br>WITH<br>50-69% | %<br>WITH<br>70-100% |
| <b>TOTAL</b>                    | 1196                    | 55.3               | 19.6                | 10.9                | 14.2                 | 883                     | 35.6               | 17.0                | 16.1                | 31.3                 |
| <b>AVERAGE SES OF STUDENTS:</b> |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| LOW                             | 299                     | 45.3               | 21.9                | 10.3                | 22.5                 | 208                     | 22.1               | 11.1                | 17.5                | 49.4                 |
| MIDDLE                          | 596                     | 58.2               | 19.0                | 12.8                | 10.1                 | 435                     | 27.8               | 20.0                | 19.0                | 33.2                 |
| HIGH                            | 301                     | 65.1               | 17.3                | 6.9                 | 10.7                 | 221                     | 67.4               | 13.9                | 5.9                 | 12.8                 |
| <b>SCHOOL TYPE:</b>             |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| PUBLIC                          | 1070                    | 50.7               | 22.1                | 10.4                | 16.7                 | 768                     | 26.8               | 18.5                | 18.8                | 35.9                 |
| PRIVATE                         | 12                      | 72.8               | 0.0                 | 27.2                | 0.0                  | 37                      | 49.0               | 16.9                | 9.9                 | 24.2                 |
| CATHOLIC                        | 71                      | 81.1               | 8.5                 | 9.7                 | 0.8                  | 78                      | 89.6               | 3.3                 | 3.3                 | 3.8                  |
| <b>GEOGRAPHIC REGION:</b>       |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| NORTHEAST                       | 241                     | 88.8               | 8.6                 | 2.0                 | 0.5                  | 185                     | 71.7               | 16.7                | 8.1                 | 3.4                  |
| NORTH CENTRAL                   | 316                     | 44.9               | 22.0                | 17.2                | 15.9                 | 247                     | 24.3               | 20.1                | 20.0                | 35.5                 |
| SOUTH                           | 443                     | 46.6               | 23.4                | 12.8                | 17.3                 | 274                     | 38.2               | 15.2                | 12.0                | 34.7                 |
| WEST                            | 196                     | 53.1               | 20.4                | 5.7                 | 20.8                 | 177                     | 17.4               | 15.9                | 24.1                | 42.7                 |
| <b>COMMUNITY TYPE:</b>          |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| URBAN                           | 357                     | 63.6               | 15.7                | 5.8                 | 14.9                 | 217                     | 44.2               | 18.7                | 11.6                | 25.5                 |
| SUBURBAN                        | 601                     | 57.5               | 22.3                | 9.6                 | 10.7                 | 424                     | 48.2               | 18.9                | 15.0                | 17.8                 |
| RURAL                           | 233                     | 50.3               | 18.7                | 13.9                | 17.1                 | 242                     | 23.6               | 15.1                | 18.4                | 42.9                 |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-9

## PERCENT ENROLLED IN VOCATIONAL-TECHNICAL CURRICULUM

|                                 | NLS 1972                |                   |                     |                     |                      | MSB 1980                |                   |                     |                     |                      |
|---------------------------------|-------------------------|-------------------|---------------------|---------------------|----------------------|-------------------------|-------------------|---------------------|---------------------|----------------------|
|                                 | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-9% | %<br>WITH<br>10-14% | %<br>WITH<br>15-19% | %<br>WITH<br>20-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-9% | %<br>WITH<br>10-14% | %<br>WITH<br>15-19% | %<br>WITH<br>20-100% |
| <b>TOTAL</b>                    | 1196                    | 31.9              | 3.0                 | 6.1                 | 59.0                 | 900                     | 41.6              | 6.1                 | 4.4                 | 48.0                 |
| <b>AVERAGE SES OF STUDENTS:</b> |                         |                   |                     |                     |                      |                         |                   |                     |                     |                      |
| LOW                             | 299                     | 28.9              | 2.0                 | 3.2                 | 65.9                 | 211                     | 38.7              | 1.9                 | 3.7                 | 55.7                 |
| MIDDLE                          | 596                     | 29.8              | 2.5                 | 5.0                 | 62.7                 | 444                     | 31.6              | 5.9                 | 5.1                 | 57.4                 |
| HIGH                            | 301                     | 42.9              | 6.4                 | 14.2                | 36.5                 | 226                     | 61.7              | 11.1                | 3.7                 | 23.6                 |
| <b>SCHOOL TYPE:</b>             |                         |                   |                     |                     |                      |                         |                   |                     |                     |                      |
| PUBLIC                          | 1070                    | 29.3              | 3.1                 | 3.9                 | 63.7                 | 784                     | 29.7              | 5.5                 | 5.2                 | 59.6                 |
| PRIVATE                         | 12                      | 77.4              | 0.0                 | 18.7                | 3.9                  | 37                      | 84.3              | 5.0                 | 0.0                 | 10.8                 |
| CATHOLIC                        | 71                      | 42.1              | 4.4                 | 21.8                | 31.7                 | 79                      | 65.4              | 13.6                | 5.5                 | 15.4                 |
| <b>GEOGRAPHIC REGION:</b>       |                         |                   |                     |                     |                      |                         |                   |                     |                     |                      |
| NORTHEAST                       | 241                     | 18.2              | 2.6                 | 9.2                 | 69.9                 | 193                     | 28.5              | 10.9                | 4.5                 | 56.1                 |
| NORTH CENTRAL                   | 316                     | 35.0              | 3.3                 | 6.7                 | 55.0                 | 254                     | 38.7              | 5.0                 | 4.8                 | 51.4                 |
| SOUTH                           | 443                     | 35.7              | 2.9                 | 5.7                 | 55.7                 | 279                     | 41.8              | 6.8                 | 2.5                 | 48.8                 |
| WEST                            | 196                     | 34.6              | 3.2                 | 1.9                 | 60.2                 | 174                     | 57.3              | 2.0                 | 7.1                 | 33.7                 |
| <b>COMMUNITY TYPE:</b>          |                         |                   |                     |                     |                      |                         |                   |                     |                     |                      |
| URBAN                           | 357                     | 35.8              | 4.6                 | 9.2                 | 50.5                 | 222                     | 58.6              | 7.2                 | 5.2                 | 29.0                 |
| SUBURBAN                        | 601                     | 29.5              | 4.6                 | 10.2                | 55.7                 | 433                     | 34.3              | 6.8                 | 4.8                 | 54.1                 |
| RURAL                           | 233                     | 32.9              | 1.0                 | 1.0                 | 65.0                 | 245                     | 40.6              | 5.1                 | 3.8                 | 50.6                 |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-10

## PERCENT OF STUDENTS CLASSIFIED AS HANDICAPPED

|                          | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL                    | 841         | 10573         | 3.86 | 4.8  | 886         | 19006         | 3.70 | 5.6  | 5.22           | -0.16                   | -0.03          |
| AVERAGE SES OF STUDENTS: |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                      | 195         | 2924          | 6.33 | 7.1  | 202         | 4208          | 4.99 | 4.9  | 6.11           | -1.34                   | -0.22          |
| MIDDLE                   | 432         | 5773          | 3.15 | 3.2  | 441         | 10266         | 3.92 | 6.6  | 5.20           | 0.77                    | 0.15           |
| HIGH                     | 214         | 1875          | 2.19 | 1.9  | 226         | 4079          | 1.97 | 2.6  | 2.28           | -0.22                   | -0.10          |
| SCHOOL TYPE:             |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                   | 788         | 9599          | 4.06 | 4.9  | 769         | 14550         | 4.24 | 5.8  | 5.34           | 0.18                    | 0.03           |
| PRIVATE                  | 1           | 19            | 0.64 | 0.0  | 35          | 2899          | 2.37 | 5.5  | 5.62           | 1.72                    | 0.31           |
| CATHOLIC                 | 20          | 657           | 1.41 | 1.1  | 82          | 1556          | 1.09 | 1.9  | 1.75           | -0.32                   | -0.18          |
| GEOGRAPHIC REGION:       |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                | 183         | 2698          | 3.44 | 3.5  | 190         | 3075          | 3.77 | 9.2  | 7.00           | 0.34                    | 0.05           |
| NORTH CENTRAL            | 225         | 3534          | 3.74 | 3.9  | 256         | 5949          | 3.48 | 3.8  | 3.85           | -0.26                   | -0.07          |
| SOUTH                    | 272         | 2918          | 5.02 | 6.9  | 264         | 6339          | 3.39 | 3.9  | 5.63           | -1.63                   | -0.29          |
| WEST                     | 161         | 1423          | 2.60 | 2.3  | 176         | 3643          | 4.54 | 6.6  | 5.02           | 1.95 *                  | 0.39           |
| COMMUNITY TYPE:          |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                    | 258         | 1532          | 2.28 | 2.2  | 221         | 3087          | 3.25 | 9.1  | 6.37           | 0.96                    | 0.15           |
| SUBURBAN                 | 439         | 4776          | 3.60 | 4.5  | 422         | 6650          | 3.37 | 4.9  | 4.72           | -0.24                   | -0.05          |
| RURAL                    | 139         | 4217          | 4.74 | 5.5  | 243         | 9268          | 4.09 | 4.4  | 4.86           | -0.66                   | -0.13          |

\* SIGNIFICANT AT .05 OR LESS



TABLE 4-11

## PERCENT OF STUDENTS CLASSIFIED AS DISADVANTAGED

|                          | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| TOTAL                    | 671         | 9235          | 21.82 | 22.1 | 921         | 19177         | 13.90 | 19.8 | 20.82          | -7.92 *                 | -0.38          |
| AVERAGE SES OF STUDENTS: |             |               |       |      |             |               |       |      |                |                         |                |
| LOW                      | 205         | 3363          | 36.90 | 24.7 | 218         | 4436          | 30.72 | 28.5 | 26.76          | -6.18                   | -0.23          |
| MIDDLE                   | 329         | 4592          | 15.20 | 15.7 | 454         | 10151         | 10.76 | 12.8 | 14.11          | -4.44 *                 | -0.31          |
| HIGH                     | 137         | 1281          | 5.93  | 7.1  | 229         | 4120          | 3.09  | 5.5  | 6.14           | -2.84 *                 | -0.46          |
| SCHOOL TYPE:             |             |               |       |      |             |               |       |      |                |                         |                |
| PUBLIC                   | 622         | 8465          | 22.21 | 21.6 | 804         | 14707         | 17.27 | 21.1 | 21.33          | -4.94 *                 | -0.23          |
| PRIVATE                  | 8           | 8             | 0.0   | 0.0  | 36          | 3013          | 1.82  | 5.6  | 5.80           | 0.0                     | 0.0            |
| CATHOLIC                 | 16          | 414           | 9.34  | 13.8 | 81          | 1457          | 4.79  | 9.2  | 10.24          | -4.54                   | -0.44          |
| GEOGRAPHIC REGION:       |             |               |       |      |             |               |       |      |                |                         |                |
| NORTHEAST                | 139         | 2054          | 16.28 | 20.0 | 192         | 3137          | 14.03 | 17.6 | 18.69          | -2.25                   | -0.12          |
| NORTH CENTRAL            | 158         | 2729          | 15.87 | 16.4 | 263         | 6019          | 8.82  | 13.1 | 14.49          | -7.05 *                 | -0.49          |
| SOUTH                    | 276         | 3480          | 31.59 | 25.2 | 287         | 6601          | 20.47 | 25.4 | 25.34          | -11.12 *                | -0.44          |
| WEST                     | 98          | 972           | 15.19 | 15.3 | 179         | 3419          | 10.02 | 14.7 | 14.95          | -5.17                   | -0.35          |
| COMMUNITY TYPE:          |             |               |       |      |             |               |       |      |                |                         |                |
| URBAN                    | 194         | 1077          | 22.27 | 25.0 | 227         | 3258          | 14.87 | 24.4 | 24.74          | -7.40                   | -0.30          |
| SUBURBAN                 | 324         | 3605          | 14.31 | 17.7 | 450         | 6863          | 9.77  | 15.5 | 16.46          | -4.54 *                 | -0.28          |
| RURAL                    | 150         | 4511          | 27.78 | 22.8 | 244         | 9056          | 16.68 | 20.3 | 21.35          | -11.11 *                | -0.52          |

\* SIGNIFICANT AT .05 OR LESS

## B. STAFF CHARACTERISTICS

Another set of factors affecting the quality of students' educational experiences is the nature of the school's faculty. Relatively comparable data were available for both 1972 and 1980 in four areas: 1) number of students per classroom teacher, 2) percentage of staff with advanced degrees, 3) teacher turnover rates, and 4) racial/ethnic composition of the school's staff.

### 1. Student/Staff Ratios

Between 1972 and 1980, the average number of students per high school classroom teacher dropped from 17.6 to 14.7. (See Table 4-12.) This decline was statistically significant for schools at all three SES levels, in all three types of communities, in public schools, and in the South and West. The effect size varied across these groups, however. Middle SES schools and suburban and rural schools showed a moderate effect size, while high SES, urban, and Southern and Western schools showed large effect sizes.

### 2. Percentage of Staff with Advanced Degrees

Table 4-13 shows the percentage of schools with low, moderate and high numbers of high school teachers holding master's or doctor's degrees. Nationally, the percentage of schools where the majority of the staff hold advanced degrees increased from 22.1 percent to 31.6 percent between 1972 and 1980. The largest shifts occurred in low SES schools, rural schools, and schools located in the South. In each of these three categories, the percentage of schools where more than 50 percent of the teachers held master's or doctor's degrees increased from approximately 11 percent to 27 percent over this eight-year period. Large differences among groups of schools remained in 1980, however. For example, 48 percent of high SES and only 24 percent of low SES schools had a majority of their teachers with advanced degrees. Similar contrasts are 57 percent in the Northeast versus 22.5 percent in the West, and 43 percent in urban schools versus 22 percent in rural schools.

### 3. Teacher Turnover

Administrators were asked to report the percentage of full-time high school teachers who left their school for reasons other than death or retirement. The results are contained in Table 4-14. The percentage of schools losing more than 20 percent of their staff in one year increased from 17.5 percent to 20.1 percent between 1972 and 1980. The problem of growing teacher turnover rates is magnified when one looks at the change in the percentage of schools with turnover rates of 10 percent or more. Nationally, the figures increased from 37.8 percent to 46.2 percent between 1972 and 1980, and in urban communities, the percentages grew from 26.9 percent to 39.5 percent. By 1980, there was little difference in teacher turnover rates among low, medium and high SES schools, but non-public schools, rural schools, and schools in the North Central regions had a disproportionate number of schools with high staff turnover.

TABLE 4-12

## NUMBER OF STUDENTS PER TEACHER

|                          | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| TOTAL                    | 1238        | 18666         | 17.61 | 5.8  | 908         | 19234         | 14.74 | 6.7  | 6.23           | -2.86 *                 | -0.46          |
| AVERAGE SES OF STUDENTS: |             |               |       |      |             |               |       |      |                |                         |                |
| LOW                      | 306         | 5896          | 17.58 | 6.3  | 207         | 4257          | 14.98 | 8.0  | 7.01           | -2.61 *                 | -0.37          |
| MIDDLE                   | 616         | 9290          | 17.15 | 5.3  | 454         | 10397         | 15.04 | 5.8  | 5.52           | -2.11 *                 | -0.38          |
| HIGH                     | 316         | 3481          | 18.86 | 6.2  | 229         | 3983          | 15.01 | 6.7  | 6.44           | -3.84 *                 | -0.60          |
| SCHOOL TYPE:             |             |               |       |      |             |               |       |      |                |                         |                |
| PUBLIC                   | 1108        | 15775         | 17.76 | 5.7  | 793         | 14816         | 15.97 | 6.3  | 5.97           | -1.79 *                 | -0.30          |
| PRIVATE                  | 12          | 811           | 11.58 | 4.4  | 34          | 2898          | 6.86  | 3.8  | 4.07           | -4.71                   | -1.16          |
| CATHOLIC                 | 72          | 1644          | 17.93 | 5.2  | 81          | 1519          | 17.83 | 4.3  | 4.78           | -0.10                   | -0.02          |
| GEOGRAPHIC REGION:       |             |               |       |      |             |               |       |      |                |                         |                |
| NORTHEAST                | 258         | 3655          | 16.91 | 5.7  | 192         | 3112          | 15.22 | 7.1  | 6.34           | -1.68                   | -0.27          |
| NORTH CENTRAL            | 320         | 5793          | 16.12 | 5.5  | 257         | 5900          | 14.92 | 5.7  | 5.60           | -1.20                   | -0.21          |
| SOUTH                    | 457         | 6234          | 17.68 | 4.9  | 278         | 6559          | 14.78 | 6.4  | 5.52           | -2.90 *                 | -0.53          |
| WEST                     | 203         | 2984          | 21.20 | 6.7  | 181         | 3664          | 13.99 | 8.4  | 7.57           | -7.21 *                 | -0.95          |
| COMMUNITY TYPE:          |             |               |       |      |             |               |       |      |                |                         |                |
| URBAN                    | 372         | 2836          | 19.66 | 5.6  | 224         | 3111          | 13.81 | 9.2  | 7.18           | -5.84 *                 | -0.81          |
| SUBURBAN                 | 619         | 7375          | 18.70 | 5.7  | 438         | 6795          | 17.33 | 5.8  | 5.74           | -1.37 *                 | -0.24          |
| RURAL                    | 240         | 8361          | 15.94 | 5.6  | 246         | 9327          | 13.17 | 5.7  | 5.68           | -2.77 *                 | -0.49          |

\* SIGNIFICANT AT .05 OR LESS

TABLE 4-13

PERCENT OF FULL TIME HIGH SCHOOL TEACHERS WITH MASTER'S OR DOCTOR'S DEGREES

|                          | NLS 1972                |                    |                     |                     |                      | HSB 1980                |                    |                     |                     |                      |
|--------------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-29% | %<br>WITH<br>30-49% | %<br>WITH<br>50-69% | %<br>WITH<br>70-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-29% | %<br>WITH<br>30-49% | %<br>WITH<br>50-69% | %<br>WITH<br>70-100% |
| TOTAL                    | 1254                    | 47.9               | 30.0                | 15.2                | 6.9                  | 969                     | 36.3               | 32.1                | 19.9                | 11.7                 |
| AVERAGE SES OF STUDENTS: |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| LOW                      | 309                     | 69.8               | 20.0                | 7.2                 | 3.0                  | 229                     | 36.1               | 39.9                | 11.3                | 12.7                 |
| MIDDLE                   | 624                     | 43.4               | 34.0                | 15.6                | 6.9                  | 483                     | 41.4               | 29.2                | 19.0                | 10.4                 |
| HIGH                     | 321                     | 22.6               | 36.7                | 27.4                | 13.3                 | 234                     | 21.2               | 30.6                | 32.7                | 15.5                 |
| SCHOOL TYPE:             |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| PUBLIC                   | 1125                    | 51.2               | 28.5                | 14.2                | 6.2                  | 849                     | 36.6               | 31.2                | 18.8                | 13.4                 |
| PRIVATE                  | 12                      | 30.5               | 54.1                | 13.6                | 1.8                  | 37                      | 39.2               | 32.8                | 24.2                | 3.8                  |
| CATHOLIC                 | 72                      | 18.8               | 37.8                | 28.1                | 15.3                 | 83                      | 27.6               | 39.1                | 22.3                | 11.0                 |
| GEOGRAPHIC REGION:       |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| NORTHEAST                | 260                     | 29.5               | 30.9                | 23.5                | 16.1                 | 206                     | 20.3               | 21.8                | 26.0                | 31.9                 |
| NORTH CENTRAL            | 324                     | 49.2               | 30.1                | 14.5                | 6.3                  | 275                     | 40.7               | 31.6                | 16.0                | 11.7                 |
| SOUTH                    | 462                     | 55.5               | 32.2                | 10.9                | 1.4                  | 297                     | 38.6               | 34.0                | 21.3                | 6.1                  |
| WEST                     | 208                     | 52.2               | 24.5                | 15.3                | 8.0                  | 191                     | 39.2               | 38.2                | 18.2                | 4.3                  |
| COMMUNITY TYPE:          |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| URBAN                    | 380                     | 31.9               | 37.7                | 20.7                | 9.8                  | 238                     | 33.5               | 23.3                | 26.6                | 16.5                 |
| SUBURBAN                 | 626                     | 34.6               | 34.9                | 19.8                | 10.8                 | 468                     | 30.3               | 30.5                | 23.7                | 15.5                 |
| RURAL                    | 241                     | 65.4               | 23.5                | 8.8                 | 2.3                  | 263                     | 41.6               | 36.3                | 14.7                | 7.3                  |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-14

PERCENT OF FULL TIME HIGH SCHOOL TEACHERS LEAVING SINCE END OF LAST SCHOOL YEAR

|                          | NLS 1972                |                   |                   |                     |                      | HSB 1980                |                   |                   |                     |                      |
|--------------------------|-------------------------|-------------------|-------------------|---------------------|----------------------|-------------------------|-------------------|-------------------|---------------------|----------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-4% | %<br>WITH<br>5-9% | %<br>WITH<br>10-19% | %<br>WITH<br>20-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-4% | %<br>WITH<br>5-9% | %<br>WITH<br>10-19% | %<br>WITH<br>20-100% |
| TOTAL                    | 1258                    | 46.8              | 15.4              | 20.3                | 17.5                 | 979                     | 38.1              | 15.7              | 26.1                | 20.1                 |
| AVERAGE SES OF STUDENTS: |                         |                   |                   |                     |                      |                         |                   |                   |                     |                      |
| LOW                      | 310                     | 51.2              | 12.3              | 15.3                | 21.3                 | 232                     | 43.3              | 7.7               | 24.7                | 24.3                 |
| MIDDLE                   | 625                     | 42.7              | 17.7              | 23.5                | 16.1                 | 487                     | 35.4              | 19.1              | 25.4                | 20.2                 |
| HIGH                     | 323                     | 50.2              | 14.4              | 20.3                | 15.1                 | 238                     | 37.3              | 17.1              | 28.1                | 17.4                 |
| SCHOOL TYPE:             |                         |                   |                   |                     |                      |                         |                   |                   |                     |                      |
| PUBLIC                   | 1126                    | 47.7              | 16.3              | 19.0                | 17.0                 | 860                     | 41.4              | 16.1              | 25.4                | 17.0                 |
| PRIVATE                  | 12                      | 22.9              | 5.5               | 62.3                | 9.2                  | 36                      | 27.0              | 15.6              | 26.4                | 31.0                 |
| CATHOLIC                 | 73                      | 52.2              | 9.8               | 8.8                 | 29.2                 | 83                      | 25.8              | 12.2              | 31.9                | 30.1                 |
| GEOGRAPHIC REGION:       |                         |                   |                   |                     |                      |                         |                   |                   |                     |                      |
| NORTHEAST                | 262                     | 54.1              | 20.2              | 20.6                | 5.1                  | 207                     | 55.1              | 18.8              | 17.9                | 8.2                  |
| NORTH CENTRAL            | 327                     | 40.2              | 14.4              | 20.5                | 24.9                 | 276                     | 30.9              | 16.0              | 27.0                | 26.1                 |
| SOUTH                    | 461                     | 44.3              | 14.7              | 21.7                | 19.3                 | 299                     | 33.9              | 13.5              | 32.3                | 20.3                 |
| WEST                     | 208                     | 56.0              | 12.6              | 16.5                | 14.9                 | 197                     | 42.4              | 16.4              | 20.5                | 20.7                 |
| COMMUNITY TYPE:          |                         |                   |                   |                     |                      |                         |                   |                   |                     |                      |
| URBAN                    | 382                     | 57.1              | 16.0              | 14.0                | 12.9                 | 241                     | 44.6              | 15.9              | 23.3                | 16.2                 |
| SUBURBAN                 | 628                     | 47.4              | 17.3              | 21.4                | 13.9                 | 472                     | 42.1              | 20.2              | 24.3                | 13.5                 |
| RURAL                    | 241                     | 43.0              | 13.6              | 21.3                | 22.1                 | 266                     | 33.0              | 12.4              | 28.3                | 26.2                 |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

#### 4. Racial/Ethnic Composition of Staff

As shown in Table 4-15, the percentage of schools with predominantly minority staff (more than 50 percent minority faculty) was very small in both 1972 and 1980 (4 percent), while the percentage with nearly all white staff was large (70 percent). There was, however, a large increase in the percentage of low SES schools with mostly minority staff members and a moderate increase in the percentage of schools with more than 20 percent minority staff in the South. Looking across the classification variables in 1980, one finds that larger percentages of low SES schools, urban schools, and schools in the South have high concentrations of minority staff than do other school types.

### C. EDUCATIONAL PROGRAMS AND TEACHING METHODS

#### 1. Educational Programs

The 1972 and 1980 school questionnaires provided few comparable variables describing school programs. Within the limits of existing data, this section examines the availability of special educational programs and the use of ability grouping in 1972 and 1980.

a. Handicapped Education. Table 4-16 shows the type of placement given handicapped students in 1972 and 1980 (1 = no special classes, 2 = some special classes, and 3 = all special classes). The figures imply that schools began to make slightly greater use of special classes during that period. The small change masks two opposing trends: the larger number of severely handicapped students served by schools in 1980 who require special classes, and the effort to "mainstream" mildly handicapped students into regular classrooms. Public schools appear to make greater use of special classes than do private or Catholic schools. This variation may be explained by the different mix of handicapped students served in each sector.

b. Federal Programs. Tables 4-17 through 4-20 report the percentage of schools participating in four federal programs: Title I (Education of Children of Economically Disadvantaged), Title VII (Bilingual Education), Vocational Education Basic Programs, and Vocational Education Consumer and Homemaking Education. The percentage of schools participating in Title I decreased generally from 67.1 percent to 55.6 percent between 1972 and 1980. The largest declines are found among low and high SES schools, and schools in the South and West. Program participation increased among middle SES and Catholic schools.

More schools chose to participate in the federal bilingual education program between 1972 and 1980. This increase was consistent across all classifications, but reached significance only for high SES, public, urban, and suburban schools. The increase was greatest in urban schools. More surprisingly, the participation rate of high SES schools nearly tripled, from 3.8 percent to 10.7 percent.



TABLE 4-15

PERCENT OF CURRENT FACULTY WHO ARE WHITE

|                          | NLS 1972                |                    |                     |                     |                      | HSB 1980                |                    |                     |                     |                      |
|--------------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|-------------------------|--------------------|---------------------|---------------------|----------------------|
|                          | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-49% | %<br>WITH<br>50-79% | %<br>WITH<br>80-94% | %<br>WITH<br>95-100% | NUMBER<br>OF<br>SCHOOLS | %<br>WITH<br>0-49% | %<br>WITH<br>50-79% | %<br>WITH<br>80-94% | %<br>WITH<br>95-100% |
| TOTAL                    | 1232                    | 4.4                | 9.3                 | 15.3                | 71.0                 | 919                     | 3.9                | 7.6                 | 18.3                | 70.2                 |
| AVERAGE SES OF STUDENTS: |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| LOW                      | 299                     | 6.9                | 17.3                | 21.3                | 54.6                 | 213                     | 14.4               | 19.2                | 20.2                | 46.2                 |
| MIDDLE                   | 616                     | 4.3                | 6.9                 | 13.3                | 75.5                 | 458                     | 0.8                | 4.8                 | 21.2                | 73.2                 |
| HIGH                     | 317                     | 0.4                | 2.2                 | 10.3                | 87.1                 | 226                     | 0.0                | 2.5                 | 11.1                | 86.4                 |
| SCHOOL TYPE:             |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| PUBLIC                   | 1104                    | 4.2                | 10.2                | 16.1                | 69.5                 | 807                     | 5.0                | 8.8                 | 20.4                | 65.8                 |
| PRIVATE                  | 11                      | 0.0                | 0.0                 | 14.3                | 85.7                 | 35                      | 0.0                | 3.9                 | 7.1                 | 89.0                 |
| CATHOLIC                 | 71                      | 2.3                | 0.0                 | 7.2                 | 90.5                 | 77                      | 0.0                | 2.7                 | 17.4                | 79.8                 |
| GEOGRAPHIC REGION:       |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| NORTHEAST                | 250                     | 2.9                | 1.7                 | 8.5                 | 87.0                 | 195                     | 1.4                | 2.4                 | 8.6                 | 87.6                 |
| NORTH CENTRAL            | 321                     | 3.2                | 3.1                 | 10.3                | 83.4                 | 260                     | 1.2                | 2.6                 | 5.6                 | 90.6                 |
| SOUTH                    | 456                     | 7.5                | 22.9                | 23.9                | 45.6                 | 281                     | 8.8                | 15.4                | 30.0                | 45.7                 |
| WEST                     | 205                     | 2.0                | 1.7                 | 14.8                | 81.5                 | 183                     | 1.6                | 6.3                 | 25.3                | 66.8                 |
| COMMUNITY TYPE:          |                         |                    |                     |                     |                      |                         |                    |                     |                     |                      |
| URBAN                    | 372                     | 4.8                | 19.5                | 22.5                | 53.2                 | 226                     | 7.4                | 17.1                | 16.1                | 59.4                 |
| SUBURBAN                 | 618                     | 4.6                | 8.2                 | 15.2                | 72.0                 | 448                     | 1.3                | 6.0                 | 22.7                | 70.1                 |
| RURAL                    | 235                     | 4.1                | 7.3                 | 13.2                | 75.4                 | 245                     | 4.7                | 5.7                 | 15.7                | 73.9                 |

NOTE: PERCENTAGES ARE BASED ON WEIGHTED DATA

TABLE 4-16

EXTENT OF SPECIAL ACCOMMODATIONS FOR HANDICAPPED STUDENTS  
( 1=NO SPECIAL CLASSES, 3=ALL SPECIAL CLASSES )

|                          | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL                    | 917         | 11459         | 1.59 | 0.5  | 924         | 17724         | 1.68 | 0.5  | 0.50           | 0.10 *                  | 0.19           |
| AVERAGE SES OF STUDENTS: |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                      | 208         | 3158          | 1.62 | 0.6  | 218         | 4368          | 1.83 | 0.4  | 0.50           | 0.21 *                  | 0.42           |
| MIDDLE                   | 479         | 6281          | 1.55 | 0.5  | 465         | 9651          | 1.69 | 0.4  | 0.49           | 0.14 *                  | 0.29           |
| HIGH                     | 230         | 2020          | 1.65 | 0.5  | 219         | 3221          | 1.53 | 0.5  | 0.49           | -0.12                   | -0.25          |
| SCHOOL TYPE:             |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                   | 857         | 10365         | 1.63 | 0.5  | 845         | 14932         | 1.78 | 0.4  | 0.47           | 0.15 *                  | 0.32           |
| PRIVATE                  | 2           | 36            | 1.00 | 0.0  | 22          | 1623          | 1.22 | 0.4  | 0.41           | 0.22                    | 0.55           |
| CATHOLIC                 | 24          | 730           | 1.05 | 0.1  | 57          | 1169          | 1.06 | 0.2  | 0.18           | 0.01                    | 0.07           |
| GEOGRAPHIC REGION:       |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                | 200         | 2070          | 1.58 | 0.6  | 196         | 3146          | 1.68 | 0.5  | 0.53           | 0.10                    | 0.19           |
| NORTH CENTRAL            | 246         | 3017          | 1.54 | 0.5  | 263         | 5670          | 1.74 | 0.4  | 0.47           | 0.20 *                  | 0.42           |
| SOUTH                    | 297         | 3262          | 1.58 | 0.6  | 280         | 5667          | 1.71 | 0.4  | 0.52           | 0.12                    | 0.24           |
| WEST                     | 174         | 1512          | 1.72 | 0.5  | 185         | 3241          | 1.54 | 0.5  | 0.47           | -0.18 *                 | -0.38          |
| COMMUNITY TYPE:          |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                    | 281         | 1774          | 1.54 | 0.5  | 229         | 2654          | 1.55 | 0.5  | 0.51           | 0.01                    | 0.02           |
| SUBURBAN                 | 479         | 5172          | 1.60 | 0.5  | 439         | 6428          | 1.61 | 0.4  | 0.49           | 0.01                    | 0.02           |
| RURAL                    | 152         | 4465          | 1.59 | 0.6  | 256         | 8642          | 1.78 | 0.4  | 0.49           | 0.18 *                  | 0.38           |

\* SIGNIFICANT AT .05 OR LESS

TABLE 4-17

PERCENT OF HIGH SCHOOLS PARTICIPATING IN TITLE I, ELEMENTARY AND SECONDARY EDUCATION ACT  
(EDUCATION OF CHILDREN OF ECONOMICALLY DISADVANTAGED)

|                          | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL                    | 1169        | 17705         | 67.1    | 962         | 20384         | 55.6    | -11.4 *                 |
| AVERAGE SES OF STUDENTS: |             |               |         |             |               |         |                         |
| LOW                      | 287         | 5736          | 89.0    | 227         | 4640          | 66.4    | -22.6 *                 |
| MIDDLE                   | 585         | 8852          | 61.8    | 475         | 10763         | 65.9    | 4.1                     |
| HIGH                     | 297         | 3117          | 41.5    | 238         | 4350          | 24.4    | -17.1 *                 |
| SCHOOL TYPE:             |             |               |         |             |               |         |                         |
| PUBLIC                   | 1050        | 15126         | 75.1    | 845         | 15706         | 69.7    | -5.4                    |
| PRIVATE                  | 10          | 726           | 0.0     | 37          | 3170          | 1.1     | 1.1                     |
| CATHOLIC                 | 69          | 1455          | 14.8    | 80          | 1508          | 23.6    | 8.8                     |
| GEOGRAPHIC REGION:       |             |               |         |             |               |         |                         |
| NORTHEAST                | 246         | 3296          | 65.6    | 205         | 3395          | 68.4    | 2.8                     |
| NORTH CENTRAL            | 305         | 5480          | 66.9    | 270         | 6140          | 68.5    | 1.5                     |
| SOUTH                    | 432         | 6017          | 71.1    | 295         | 6948          | 52.3    | -18.8 *                 |
| WEST                     | 186         | 2912          | 60.8    | 192         | 3901          | 30.3    | -30.5 *                 |
| COMMUNITY TYPE:          |             |               |         |             |               |         |                         |
| URBAN                    | 342         | 2670          | 33.2    | 238         | 3454          | 24.5    | -8.7                    |
| SUBURBAN                 | 590         | 6884          | 62.1    | 463         | 7124          | 49.2    | -12.8 *                 |
| RURAL                    | 230         | 8058          | 82.9    | 261         | 9806          | 71.2    | -11.7 *                 |

\* SIGNIFICANT AT .05 OR LESS

TABLE 4-18

PERCENT OF HIGH SCHOOLS PARTICIPATING IN TITLE VII, ELEMENTARY AND SECONDARY EDUCATION ACT  
(BILINGUAL EDUCATION)

|                          | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL                    | 1051        | 15503         | 6.9     | 957         | 20333         | 10.6    | 3.7 *                   |
| AVERAGE SES OF STUDENTS: |             |               |         |             |               |         |                         |
| LOW                      | 241         | 4643          | 7.4     | 228         | 4627          | 13.1    | 5.6                     |
| MIDDLE                   | 522         | 7926          | 7.7     | 474         | 10782         | 10.0    | 2.3                     |
| HIGH                     | 288         | 3014          | 3.8     | 236         | 4327          | 10.7    | 6.9 *                   |
| SCHOOL TYPE:             |             |               |         |             |               |         |                         |
| PUBLIC                   | 941         | 13222         | 8.0     | 818         | 15628         | 13.0    | 5.0 *                   |
| PRIVATE                  | 10          | 726           | 0.0     | 37          | 3170          | 3.4     | 3.4                     |
| CATHOLIC                 | 66          | 1399          | 0.5     | 82          | 1534          | 0.4     | -0.1                    |
| GEOGRAPHIC REGION:       |             |               |         |             |               |         |                         |
| NORTHEAST                | 223         | 2742          | 7.6     | 201         | 3356          | 12.0    | 4.3                     |
| NORTH CENTRAL            | 276         | 4921          | 4.6     | 270         | 6122          | 7.6     | 3.0                     |
| SOUTH                    | 377         | 5121          | 6.1     | 290         | 6876          | 7.9     | 1.8                     |
| WEST                     | 175         | 2799          | 11.4    | 196         | 3978          | 18.6    | 7.2                     |
| COMMUNITY TYPE:          |             |               |         |             |               |         |                         |
| URBAN                    | 313         | 2503          | 8.2     | 218         | 3438          | 20.8    | 12.6 *                  |
| SUBURBAN                 | 539         | 6082          | 7.7     | 456         | 7035          | 14.5    | 6.8 *                   |
| RURAL                    | 192         | 6904          | 5.6     | 263         | 9859          | 4.2     | -1.3                    |

\* SIGNIFICANT AT .05 OR LESS

TABLE 4-19

PERCENT OF HIGH SCHOOLS PARTICIPATING IN TITLE I-B, VOCATIONAL EDUCATION ACT OF 1963  
(VOCATIONAL EDUCATION BASIC PROGRAMS)

|                          | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL                    | 1140        | 16862         | 62.5    | 948         | 19926         | 52.7    | -9.8 *                  |
| AVERAGE SES OF STUDENTS: |             |               |         |             |               |         |                         |
| LOW                      | 272         | 5178          | 74.4    | 222         | 4335          | 66.4    | -8.0                    |
| MIDDLE                   | 575         | 8595          | 60.2    | 468         | 10635         | 59.2    | -1.0                    |
| HIGH                     | 293         | 3089          | 49.2    | 237         | 4333          | 28.8    | -20.4 *                 |
| SCHOOL TYPE:             |             |               |         |             |               |         |                         |
| PUBLIC                   | 1021        | 14292         | 70.4    | 829         | 15333         | 67.8    | -2.7                    |
| PRIVATE                  | 11          | 766           | 1.5     | 36          | 3021          | 1.1     | -0.4                    |
| CATHOLIC                 | 66          | 1421          | 7.3     | 83          | 1572          | 5.2     | -2.2                    |
| GEOGRAPHIC REGION:       |             |               |         |             |               |         |                         |
| NORTHEAST                | 233         | 3056          | 55.6    | 196         | 3301          | 49.0    | -6.5                    |
| NORTH CENTRAL            | 303         | 5390          | 55.8    | 269         | 6026          | 56.9    | 1.2                     |
| SOUTH                    | 417         | 5521          | 66.7    | 290         | 6639          | 57.3    | -9.4                    |
| WEST                     | 187         | 2895          | 74.5    | 193         | 3959          | 41.8    | -32.7 *                 |
| COMMUNITY TYPE:          |             |               |         |             |               |         |                         |
| URBAN                    | 348         | 2671          | 54.2    | 230         | 3394          | 33.4    | -20.8 *                 |
| SUBURBAN                 | 573         | 6588          | 61.5    | 458         | 7104          | 54.2    | -7.3                    |
| RURAL                    | 212         | 7509          | 66.0    | 260         | 9428          | 58.6    | -7.5                    |

\* SIGNIFICANT AT .05 OR LESS

TABLE 4-20

PERCENT OF HIGH SCHOOLS PARTICIPATING IN TITLE I-F, VOCATIONAL EDUCATION ACT OF 1963  
(CONSUMER AND HOME MAKING EDUCATION)

|                          | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL                    | 1097        | 15967         | 50.2    | 963         | 20347         | 59.3    | 9.1 *                   |
| AVERAGE SES OF STUDENTS: |             |               |         |             |               |         |                         |
| LOW                      | 260         | 4590          | 54.5    | 227         | 4507          | 73.4    | 18.9 *                  |
| MIDDLE                   | 550         | 8318          | 49.8    | 474         | 10848         | 67.9    | 18.0 *                  |
| HIGH                     | 287         | 3059          | 44.8    | 239         | 4352          | 29.8    | -15.0 *                 |
| SCHOOL TYPE:             |             |               |         |             |               |         |                         |
| PUBLIC                   | 984         | 13528         | 57.6    | 843         | 15605         | 76.3    | 18.7 *                  |
| PRIVATE                  | 11          | 766           | 1.5     | 37          | 3170          | 1.1     | -0.5                    |
| CATHOLIC                 | 64          | 1398          | 0.8     | 83          | 1572          | 8.3     | 7.5                     |
| GEOGRAPHIC REGION:       |             |               |         |             |               |         |                         |
| NORTHEAST                | 220         | 2844          | 38.3    | 198         | 3336          | 44.7    | 6.4                     |
| NORTH CENTRAL            | 288         | 5249          | 45.9    | 271         | 6051          | 66.3    | 20.4 *                  |
| SOUTH                    | 406         | 5542          | 56.5    | 297         | 6980          | 68.2    | 11.6 *                  |
| WEST                     | 183         | 2332          | 59.5    | 197         | 3981          | 45.6    | -13.9                   |
| COMMUNITY TYPE:          |             |               |         |             |               |         |                         |
| URBAN                    | 324         | 2566          | 37.7    | 235         | 3429          | 33.4    | -4.3                    |
| SUBURBAN                 | 560         | 6380          | 49.5    | 468         | 7201          | 58.7    | 9.1 *                   |
| RURAL                    | 206         | 6927          | 55.3    | 260         | 9717          | 69.0    | 13.7 *                  |

\* SIGNIFICANT AT .05 OR LESS



The percentage of schools involved in the federal vocational education program declined nationally from 62.5 percent to 52.7 percent. Large and significant decreases in participation occurred among high SES schools, in urban schools, and in schools located in the West. In 1980, the program was available primarily in the public schools and in low and middle SES schools.

The percentage of schools participating in consumer and homemaking education (Title I-F, Vocational Education Act of 1963) increased significantly, from 50.2 percent in 1972 to 59.3 percent in 1980. In 1972 this program was available somewhat more often in low and middle SES schools than in high SES schools. By 1980, however, this gap had widened considerably with low and middle SES schools showing significant increases in participation while high SES schools showed a significant decrease in participation. This program is available primarily in public schools, which showed a significant increase in participation between 1972 and 1980. In 1972, more schools in the South and the West than in the Northeastern and North Central regions participated. By 1980 the program was more often available in the North Central and Southern regions, and schools in both of these regions showed significant increases in participation. This program is available more frequently in rural than in urban schools. Both suburban and rural schools showed significant increases in participation between 1972 and 1980, but a decrease in urban school participation widened the difference across schools in different types of communities.

c. Advanced Placement. The percentage of schools offering Advanced Placement (AP) courses increased significantly, from 15 percent in 1972 to 30 percent in 1980. (See Table 4-21.) The availability of these courses varied greatly across types of schools. For example, in 1980 only 22 percent of low SES schools but 62 percent of high SES schools offered AP courses. AP courses were less available, in 1980, to public than to nonpublic school students. Nearly 60 percent of schools in the Northeastern region but only 18 percent of schools in the North Central region offered AP courses in 1980. Moreover, 42.8 percent of suburban schools but only 18.2 percent of rural schools provided AP for their students. The increases in the availability of AP courses between 1972 and 1980 reached significance for all SES groups but was greatest in high SES schools, thus increasing the gap in the availability of AP courses in high and low SES schools. Similarly, the increase was significant in all geographic regions but was greatest in the Northeast, again increasing the difference among regions. The increase in the availability of AP courses was also significant for public schools and for suburban and rural schools.

d. Ability Grouping. The percentage of schools using ability grouping declined significantly between 1972 and 1980. (See Table 4-22.) In 1972, 59.5 percent of the schools used grouping. By 1980 this had decreased to 51.2 percent. Grouping was used more often in high than in low SES schools in both years. The decline in the use of grouping was

TABLE 4-21

## PERCENT OF HIGH SCHOOLS OFFERING ADVANCED PLACEMENT COURSES

|                          | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL                    | 1129        | 15688         | 15.0    | 971         | 20184         | 30.0    | 15.0 *                  |
| AVERAGE SES OF STUDENTS: |             |               |         |             |               |         |                         |
| LOW                      | 266         | 4296          | 5.8     | 231         | 4675          | 22.0    | 16.2 *                  |
| MIDDLE                   | 563         | 8380          | 13.7    | 479         | 10848         | 21.8    | 8.1 *                   |
| HIGH                     | 300         | 3011          | 31.7    | 240         | 4200          | 62.1    | 30.3 *                  |
| SCHOOL TYPE:             |             |               |         |             |               |         |                         |
| PUBLIC                   | 1016        | 13238         | 14.3    | 855         | 15801         | 28.3    | 14.0 *                  |
| PRIVATE                  | 11          | 799           | 6.8     | 36          | 2857          | 33.9    | 27.0                    |
| CATHOLIC                 | 62          | 1326          | 25.4    | 80          | 1526          | 40.2    | 14.8                    |
| GEOGRAPHIC REGION:       |             |               |         |             |               |         |                         |
| NORTHEAST                | 237         | 3227          | 28.4    | 204         | 3389          | 59.6    | 31.2 *                  |
| NORTH CENTRAL            | 299         | 5158          | 10.0    | 273         | 6123          | 18.4    | 8.3 *                   |
| SOUTH                    | 403         | 5166          | 11.2    | 297         | 6979          | 25.1    | 13.9 *                  |
| WEST                     | 190         | 2137          | 16.0    | 197         | 3693          | 31.2    | 15.2 *                  |
| COMMUNITY TYPE:          |             |               |         |             |               |         |                         |
| URBAN                    | 357         | 2630          | 32.0    | 241         | 3160          | 38.4    | 6.4                     |
| SUBURBAN                 | 563         | 6301          | 19.5    | 465         | 7095          | 42.8    | 23.3 *                  |
| RURAL                    | 202         | 6663          | 3.9     | 265         | 9929          | 18.2    | 14.2 *                  |

\* SIGNIFICANT AT .05 OR LESS

TABLE 4-22

## PERCENT OF HIGH SCHOOLS USING ABILITY GROUPINGS

|                          | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                          | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL                    | 1118        | 16446         | 59.5    | 984         | 20410         | 51.2    | -8.3 *                  |
| AVERAGE SES OF STUDENTS: |             |               |         |             |               |         |                         |
| LOW                      | 275         | 5039          | 53.4    | 233         | 4579          | 44.2    | -9.2                    |
| MIDDLE                   | 553         | 8155          | 59.1    | 486         | 10801         | 49.1    | -10.1 *                 |
| HIGH                     | 290         | 3253          | 69.9    | 242         | 4390          | 61.7    | -8.1                    |
| SCHOOL TYPE:             |             |               |         |             |               |         |                         |
| PUBLIC                   | 997         | 13665         | 58.7    | 864         | 15825         | 50.5    | -8.2 *                  |
| PRIVATE                  | 12          | 811           | 41.0    | 37          | 3014          | 52.1    | 11.1                    |
| CATHOLIC                 | 67          | 1565          | 72.8    | 83          | 1572          | 56.6    | -16.1                   |
| GEOGRAPHIC REGION:       |             |               |         |             |               |         |                         |
| NORTHEAST                | 242         | 3454          | 80.7    | 208         | 3450          | 71.5    | -9.2                    |
| NORTH CENTRAL            | 279         | 4976          | 46.6    | 278         | 6206          | 42.3    | -4.3                    |
| SOUTH                    | 412         | 5220          | 58.3    | 303         | 7036          | 48.3    | -10.0                   |
| WEST                     | 185         | 2795          | 58.5    | 195         | 3718          | 52.9    | -5.6                    |
| COMMUNITY TYPE:          |             |               |         |             |               |         |                         |
| URBAN                    | 343         | 2663          | 56.5    | 244         | 3485          | 56.4    | -0.1                    |
| SUBURBAN                 | 566         | 6630          | 70.5    | 475         | 7112          | 64.5    | -6.0                    |
| RURAL                    | 203         | 7087          | 50.4    | 265         | 9813          | 39.8    | -10.7                   |

\* SIGNIFICANT AT .05 OR LESS

significant only for middle SES schools. Catholic schools used grouping more than public or private schools. The extent of this difference decreased between 1972 and 1980, however, due to a decline in the use of grouping in Catholic schools and an increase in the use of grouping in private schools. Grouping was used more often in the Northeast than in other regions and more often in suburban than in rural or urban schools. It should be noted, however, that the information on grouping may not have identical meaning in 1972 and 1980 since the questions were phrased somewhat differently in the two questionnaires.

## 2. Teaching Methods

Students were asked how often each of six instructional methods were used in their classes: listening to teachers' lectures; participating in student-centered discussions; working on a project or in a laboratory; writing essays, themes, poetry or stories; having individualized instruction; and using teaching machines or computer-assisted instruction. Answers were scaled as 1 = Never, 2 = Seldom, 3 = Fairly Often, and 4 = Frequently.

Table 4-23 summarizes the mean responses for 1972 and 1980 and the changes that occurred during that period. The most frequently used instructional method in both years was listening to lectures by the teacher with a mean rating of 3.26. Writing essays, themes, etc., and student-centered discussions had average ratings slightly below 3, which is Fairly Often. The use of these three approaches showed little change between 1972 and 1980. Effect sizes were 0.01, -0.03, and -0.08, respectively. The remaining three methods, which were less frequently used, have changes with small effect sizes, ranging from -0.12 for working on a project or in a lab to 0.17 for use of teaching machines or computer-assisted instruction. The different rates of change did not affect the rank order of the instructional approaches over the eight years.

Table 4-23

| Instructional Method            | Mean Response |      | Difference<br>1980-1972 | Effect<br>Size |
|---------------------------------|---------------|------|-------------------------|----------------|
|                                 | 1972          | 1980 |                         |                |
| Listening to Teachers' Lectures | 3.26          | 3.27 | 0.01                    | 0.01           |
| Writing Essays, Themes, etc.    | 2.85          | 2.82 | -0.03                   | -0.03          |
| Student-Centered Discussions    | 2.73          | 2.67 | -0.06*                  | -0.08          |
| Work on Project or in Lab       | 2.48          | 2.37 | -0.12*                  | -0.12          |
| Individualized Instruction      | 1.98          | 2.09 | 0.11*                   | 0.13           |
| Teaching Machines or CAI        | 1.48          | 1.62 | 0.15*                   | 0.17           |

\*Significant at .05 or less

Some variations can be seen when the data are arrayed by the classification variables. (See Tables 4-24 through 4-29.) The use of lectures increased somewhat in academic programs (0.12), among high SES students (0.11), and in Catholic (0.18) schools. The largest significant effect size is found for high SES students attending Catholic schools (0.30).

TABLE 4-24

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: LISTENING TO THE TEACHER'S LECTURE  
(1=NEVER; 4=FREQUENTLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16517       | 3018167       | 3.26 | 0.8  | 27909       | 3009033       | 3.27 | 0.8  | 0.77           | 0.01                    | 0.01           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8185        | 1501397       | 3.22 | 0.8  | 12789       | 1389867       | 3.23 | 0.8  | 0.77           | 0.02                    | 0.02           |
| FEMALE             | 8327        | 1515753       | 3.31 | 0.8  | 13972       | 1502299       | 3.32 | 0.8  | 0.76           | 0.01                    | 0.02           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4733        | 729763        | 3.17 | 0.8  | 8274        | 799167        | 3.14 | 0.8  | 0.81           | -0.04                   | -0.04          |
| MIDDLE             | 7872        | 1544617       | 3.26 | 0.8  | 12719       | 1414929       | 3.27 | 0.8  | 0.76           | 0.01                    | 0.02           |
| HIGH               | 3851        | 733344        | 3.36 | 0.7  | 6153        | 720755        | 3.44 | 0.7  | 0.70           | 0.08 *                  | 0.11           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12780       | 2513880       | 3.28 | 0.7  | 19745       | 2352084       | 3.30 | 0.8  | 0.75           | 0.02                    | 0.03           |
| BLACK              | 2062        | 249152        | 3.20 | 0.8  | 3670        | 335200        | 3.16 | 0.8  | 0.81           | -0.04                   | -0.05          |
| ASIAN-AMERICAN     | 191         | 27544         | 3.35 | 0.7  | 357         | 38562         | 3.37 | 0.8  | 0.75           | 0.02                    | 0.02           |
| AMERICAN INDIAN    | 187         | 31116         | 3.09 | 0.8  | 214         | 21937         | 3.16 | 0.9  | 0.82           | 0.07                    | 0.08           |
| MEXICAN-AMERICAN   | 547         | 71936         | 3.17 | 0.7  | 1864        | 100223        | 3.22 | 0.8  | 0.78           | 0.04                    | 0.05           |
| PUERTO RICAN       | 93          | 9513          | 2.88 | 0.9  | 303         | 17864         | 3.12 | 0.9  | 0.88           | 0.24                    | 0.28           |
| OTHER HISPANIC     | 119         | 18268         | 3.17 | 0.8  | 952         | 65199         | 3.15 | 0.8  | 0.84           | -0.03                   | -0.03          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14804       | 2678145       | 3.26 | 0.8  | 24372       | 2705198       | 3.26 | 0.8  | 0.77           | -0.00                   | -0.00          |
| PRIVATE            | 67          | 16549         | 3.15 | 0.7  | 868         | 104229        | 3.33 | 0.7  | 0.73           | 0.18                    | 0.24           |
| CATHOLIC           | 1022        | 234467        | 3.32 | 0.7  | 2669        | 199606        | 3.45 | 0.7  | 0.70           | 0.13 *                  | 0.18           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3587        | 799437        | 3.19 | 0.8  | 5632        | 691948        | 3.17 | 0.8  | 0.81           | -0.02                   | -0.03          |
| NORTH CENTRAL      | 4537        | 911851        | 3.30 | 0.7  | 8030        | 862802        | 3.35 | 0.7  | 0.74           | 0.05 *                  | 0.07           |
| SOUTH              | 5434        | 786089        | 3.30 | 0.8  | 9170        | 910828        | 3.24 | 0.8  | 0.77           | -0.07 *                 | -0.08          |
| WEST               | 2959        | 520791        | 3.24 | 0.7  | 5077        | 543455        | 3.34 | 0.7  | 0.74           | 0.10 *                  | 0.13           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5610        | 959914        | 3.20 | 0.8  | 10194       | 1102206       | 3.20 | 0.8  | 0.77           | 0.00                    | 0.01           |
| ACADEMIC           | 6779        | 1385411       | 3.38 | 0.7  | 10480       | 1134104       | 3.46 | 0.7  | 0.70           | 0.08 *                  | 0.12           |
| VOCATIONAL         | 4127        | 672540        | 3.12 | 0.8  | 6824        | 727874        | 3.10 | 0.8  | 0.82           | -0.02                   | -0.03          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4514        | 780716        | 3.26 | 0.8  | 6418        | 600682        | 3.24 | 0.8  | 0.79           | -0.02                   | -0.03          |
| SUBURBAN           | 7906        | 1530876       | 3.28 | 0.7  | 13441       | 1489163       | 3.32 | 0.8  | 0.75           | 0.03                    | 0.05           |
| RURAL              | 3650        | 634714        | 3.22 | 0.8  | 8050        | 919188        | 3.22 | 0.8  | 0.78           | -0.00                   | -0.00          |

\*SIGNIFICANT AT .05 OR LESS

# BE21 COBA VAVIGABTE

TABLE 4-25

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: WRITING ESSAYS, THEMES, POETRY, OR STORIES  
(1=NEVER; 4=FREQUENTLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16293       | 2980504       | 2.85 | 0.9  | 27061       | 2924015       | 2.82 | 0.9  | 0.93           | -0.03                   | -0.03          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8075        | 1482943       | 2.76 | 0.9  | 12374       | 1346264       | 2.74 | 0.9  | 0.92           | -0.02                   | -0.02          |
| FEMALE             | 8213        | 1496544       | 2.93 | 0.9  | 13603       | 1465934       | 2.91 | 0.9  | 0.94           | -0.02                   | -0.02          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4654        | 717878        | 2.77 | 1.0  | 7983        | 773487        | 2.66 | 1.0  | 0.97           | -0.11 *                 | -0.11          |
| MIDDLE             | 7765        | 1524962       | 2.83 | 0.9  | 12350       | 1375199       | 2.79 | 0.9  | 0.93           | -0.04                   | -0.04          |
| HIGH               | 3817        | 727814        | 2.97 | 0.8  | 6009        | 703739        | 3.08 | 0.9  | 0.86           | 0.12 *                  | 0.14           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12642       | 2487150       | 2.84 | 0.9  | 19255       | 2295569       | 2.81 | 0.9  | 0.92           | -0.03                   | -0.03          |
| BLACK              | 2011        | 242964        | 3.01 | 0.9  | 3511        | 320564        | 2.92 | 1.0  | 0.95           | -0.09 *                 | -0.10          |
| ASIAN-AMERICAN     | 188         | 27232         | 2.79 | 0.9  | 341         | 37300         | 2.92 | 0.9  | 0.88           | 0.14                    | 0.16           |
| AMERICAN INDIAN    | 184         | 30890         | 2.74 | 1.0  | 209         | 21261         | 2.78 | 1.0  | 0.99           | 0.03                    | 0.03           |
| MEXICAN-AMERICAN   | 533         | 70046         | 2.64 | 1.0  | 1782        | 95184         | 2.70 | 1.0  | 0.98           | 0.06                    | 0.07           |
| PUERTO RICAN       | 87          | 8982          | 2.78 | 1.0  | 284         | 16741         | 2.90 | 1.0  | 0.98           | 0.12                    | 0.13           |
| OTHER HISPANIC     | 115         | 17801         | 2.75 | 1.0  | 914         | 61729         | 2.75 | 1.0  | 0.97           | -0.00                   | -0.00          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14599       | 2643162       | 2.83 | 0.9  | 23597       | 2627037       | 2.78 | 1.0  | 0.94           | -0.05 *                 | -0.05          |
| PRIVATE            | 67          | 16549         | 3.23 | 0.7  | 848         | 101395        | 3.29 | 0.8  | 0.78           | 0.07                    | 0.08           |
| CATHOLIC           | 1015        | 233645        | 2.94 | 0.8  | 2616        | 195583        | 3.05 | 0.8  | 0.85           | 0.11                    | 0.12           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3539        | 789394        | 2.88 | 0.9  | 5454        | 670748        | 2.95 | 0.9  | 0.88           | 0.07 *                  | 0.08           |
| NORTH CENTRAL      | 4488        | 901841        | 2.77 | 0.9  | 7817        | 841526        | 2.68 | 1.0  | 0.95           | -0.08 *                 | -0.09          |
| SOUTH              | 5350        | 774155        | 2.97 | 0.9  | 8885        | 884055        | 2.87 | 0.9  | 0.92           | -0.10 *                 | -0.11          |
| WEST               | 2916        | 515114        | 2.74 | 0.9  | 4905        | 527686        | 2.78 | 1.0  | 0.96           | 0.04                    | 0.04           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5521        | 945160        | 2.75 | 0.9  | 9863        | 1069980       | 2.70 | 0.9  | 0.93           | -0.05                   | -0.05          |
| ACADEMIC           | 6720        | 1374240       | 3.02 | 0.8  | 10240       | 1109038       | 3.15 | 0.8  | 0.83           | 0.13 *                  | 0.16           |
| VOCATIONAL         | 4051        | 660800        | 2.63 | 1.0  | 6570        | 702094        | 2.49 | 1.0  | 0.98           | -0.15 *                 | -0.15          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4443        | 768967        | 2.89 | 0.9  | 6190        | 581498        | 2.87 | 0.9  | 0.93           | -0.03                   | -0.03          |
| SUBURBAN           | 7816        | 1515929       | 2.86 | 0.9  | 13065       | 1450137       | 2.85 | 0.9  | 0.93           | -0.01                   | -0.01          |
| RURAL              | 3601        | 626060        | 2.76 | 0.9  | 7806        | 892380        | 2.74 | 1.0  | 0.95           | -0.02                   | -0.02          |

\*SIGNIFICANT AT .05 OR LESS



TABLE 4-26

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: PARTICIPATING IN STUDENT-CENTERED DISCUSSIONS  
(1=NEVER; 4=FREQUENTLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16398       | 2999416       | 2.73 | 0.8  | 27571       | 2974334       | 2.67 | 0.8  | 0.83           | -0.06 *                 | -0.08          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8120        | 1491730       | 2.66 | 0.8  | 12612       | 1371624       | 2.61 | 0.8  | 0.83           | -0.05 *                 | -0.06          |
| FEMALE             | 8273        | 1506669       | 2.81 | 0.8  | 13843       | 1488341       | 2.73 | 0.8  | 0.83           | -0.07 *                 | -0.09          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4687        | 723384        | 2.67 | 0.8  | 8132        | 784875        | 2.57 | 0.9  | 0.85           | -0.10 *                 | -0.12          |
| MIDDLE             | 7816        | 1534994       | 2.72 | 0.8  | 12590       | 1401819       | 2.67 | 0.8  | 0.82           | -0.06 *                 | -0.07          |
| HIGH               | 3838        | 731460        | 2.82 | 0.8  | 6102        | 714646        | 2.81 | 0.8  | 0.80           | -0.01                   | -0.01          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12719       | 2502869       | 2.73 | 0.8  | 19563       | 2330143       | 2.68 | 0.8  | 0.82           | -0.06 *                 | -0.07          |
| BLACK              | 2026        | 244993        | 2.83 | 0.9  | 3580        | 326875        | 2.69 | 0.9  | 0.88           | -0.14 *                 | -0.16          |
| ASIAN-AMERICAN     | 189         | 27292         | 2.69 | 0.8  | 354         | 38197         | 2.62 | 0.9  | 0.87           | -0.07                   | -0.08          |
| AMERICAN INDIAN    | 182         | 30586         | 2.65 | 0.8  | 213         | 21880         | 2.58 | 0.9  | 0.86           | -0.07                   | -0.08          |
| MEXICAN-AMERICAN   | 543         | 71331         | 2.63 | 0.8  | 1832        | 98373         | 2.57 | 0.9  | 0.88           | -0.06                   | -0.06          |
| PUERTO RICAN       | 93          | 9503          | 2.65 | 1.0  | 293         | 17007         | 2.58 | 0.9  | 0.93           | -0.08                   | -0.08          |
| OTHER HISPANIC     | 115         | 17739         | 2.61 | 0.9  | 945         | 64766         | 2.66 | 0.9  | 0.89           | 0.05                    | 0.06           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14691       | 2659727       | 2.73 | 0.8  | 24060       | 2673481       | 2.65 | 0.8  | 0.83           | -0.07 *                 | -0.09          |
| PRIVATE            | 67          | 16549         | 2.93 | 0.7  | 859         | 102979        | 2.94 | 0.8  | 0.83           | 0.01                    | 0.01           |
| CATHOLIC           | 1023        | 235156        | 2.84 | 0.8  | 2652        | 197874        | 2.78 | 0.8  | 0.78           | -0.05                   | -0.07          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3559        | 794939        | 2.74 | 0.8  | 5564        | 682863        | 2.67 | 0.8  | 0.83           | -0.07 *                 | -0.09          |
| NORTH CENTRAL      | 4509        | 905869        | 2.73 | 0.8  | 7937        | 853289        | 2.68 | 0.8  | 0.81           | -0.05                   | -0.06          |
| SOUTH              | 5393        | 781015        | 2.74 | 0.8  | 9053        | 900335        | 2.65 | 0.9  | 0.85           | -0.09 *                 | -0.11          |
| WEST               | 2937        | 517593        | 2.70 | 0.8  | 5017        | 537847        | 2.68 | 0.8  | 0.83           | -0.02                   | -0.03          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5565        | 951307        | 2.65 | 0.8  | 10080       | 1091701       | 2.59 | 0.8  | 0.83           | -0.06 *                 | -0.07          |
| ACADEMIC           | 6745        | 1380290       | 2.85 | 0.8  | 10399       | 1124855       | 2.81 | 0.8  | 0.79           | -0.03                   | -0.04          |
| VOCATIONAL         | 4087        | 667517        | 2.62 | 0.8  | 6706        | 715293        | 2.57 | 0.9  | 0.86           | -0.05                   | -0.06          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4492        | 777172        | 2.77 | 0.8  | 6326        | 592471        | 2.67 | 0.9  | 0.85           | -0.10 *                 | -0.12          |
| SUBURBAN           | 7860        | 1523507       | 2.76 | 0.8  | 13277       | 1471795       | 2.70 | 0.8  | 0.82           | -0.06 *                 | -0.07          |
| RURAL              | 3613        | 629445        | 2.64 | 0.8  | 7968        | 910068        | 2.62 | 0.8  | 0.83           | -0.02                   | -0.03          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-27

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: WORKING ON A PROJECT OR IN A LABORATORY  
(1=NEVER; 4=FREQUENTLY)

|                    | MLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16247       | 2973373       | 2.48 | 1.0  | 27240       | 2938544       | 2.37 | 1.0  | 1.01           | -0.12 *                 | -0.11          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8056        | 1480468       | 2.47 | 1.0  | 12445       | 1352884       | 2.43 | 1.0  | 1.02           | -0.04                   | -0.04          |
| FEMALE             | 8188        | 1492349       | 2.49 | 1.0  | 13691       | 1473332       | 2.32 | 1.0  | 1.00           | -0.18 *                 | -0.18          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4615        | 713052        | 2.37 | 1.0  | 8039        | 777562        | 2.22 | 1.1  | 1.04           | -0.15 *                 | -0.14          |
| MIDDLE             | 7765        | 1524174       | 2.48 | 1.0  | 12448       | 1385026       | 2.37 | 1.0  | 1.01           | -0.11 *                 | -0.11          |
| HIGH               | 3815        | 726835        | 2.60 | 0.9  | 6034        | 706204        | 2.55 | 1.0  | 0.94           | -0.06                   | -0.06          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12637       | 2485739       | 2.50 | 1.0  | 19355       | 2304562       | 2.39 | 1.0  | 1.00           | -0.11 *                 | -0.11          |
| BLACK              | 1978        | 239048        | 2.42 | 1.0  | 3533        | 323130        | 2.25 | 1.0  | 1.04           | -0.18 *                 | -0.17          |
| ASIAN-AMERICAN     | 187         | 27121         | 2.75 | 0.9  | 350         | 38070         | 2.64 | 1.0  | 0.94           | -0.10                   | -0.11          |
| AMERICAN INDIAN    | 179         | 29872         | 2.41 | 1.1  | 206         | 21368         | 2.39 | 1.1  | 1.08           | -0.03                   | -0.02          |
| MEXICAN-AMERICAN   | 534         | 70108         | 2.31 | 1.0  | 1803        | 96392         | 2.24 | 1.0  | 1.00           | -0.07                   | -0.07          |
| PUERTO RICAN       | 91          | 9360          | 2.22 | 1.1  | 287         | 16693         | 2.43 | 1.1  | 1.10           | 0.21                    | 0.19           |
| OTHER HISPANIC     | 117         | 18067         | 2.46 | 1.0  | 938         | 64041         | 2.30 | 1.1  | 1.05           | -0.16                   | -0.16          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14555       | 2636811       | 2.48 | 1.0  | 23760       | 2640948       | 2.36 | 1.0  | 1.01           | -0.11 *                 | -0.11          |
| PRIVATE            | 67          | 16549         | 2.31 | 1.0  | 847         | 101168        | 2.40 | 1.0  | 0.97           | 0.09                    | 0.09           |
| CATHOLIC           | 1013        | 232911        | 2.57 | 0.9  | 2633        | 196428        | 2.42 | 0.9  | 0.94           | -0.15 *                 | -0.16          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3529        | 788068        | 2.51 | 1.0  | 5517        | 678363        | 2.45 | 1.0  | 1.00           | -0.06                   | -0.06          |
| NORTH CENTRAL      | 4480        | 899635        | 2.54 | 1.0  | 7845        | 843714        | 2.45 | 1.0  | 1.01           | -0.10 *                 | -0.10          |
| SOUTH              | 5322        | 771020        | 2.37 | 1.0  | 8912        | 885308        | 2.21 | 1.0  | 0.99           | -0.16 *                 | -0.17          |
| WEST               | 2916        | 514651        | 2.49 | 1.0  | 4966        | 531160        | 2.40 | 1.0  | 1.03           | -0.09 *                 | -0.09          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5499        | 940649        | 2.29 | 1.0  | 9949        | 1076397       | 2.18 | 1.0  | 0.99           | -0.11 *                 | -0.12          |
| ACADEMIC           | 6703        | 1371319       | 2.65 | 0.9  | 10313       | 1115347       | 2.59 | 0.9  | 0.93           | -0.06 *                 | -0.07          |
| VOCATIONAL         | 4044        | 661103        | 2.40 | 1.1  | 6590        | 704310        | 2.31 | 1.1  | 1.11           | -0.09 *                 | -0.09          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4436        | 768217        | 2.48 | 1.0  | 6238        | 585131        | 2.33 | 1.0  | 1.02           | -0.15 *                 | -0.15          |
| SUBURBAN           | 7798        | 1512560       | 2.50 | 1.0  | 13129       | 1454780       | 2.41 | 1.0  | 1.00           | -0.09 *                 | -0.09          |
| RURAL              | 3588        | 623835        | 2.47 | 1.0  | 7873        | 898634        | 2.32 | 1.0  | 1.02           | -0.15 *                 | -0.15          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-28

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: HAVING INDIVIDUALIZED INSTRUCTION  
(1=NEVER; 4=FREQUENTLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16313       | 2983748       | 1.98 | 0.9  | 27600       | 2977080       | 2.09 | 0.9  | 0.87           | 0.11 *                  | 0.13           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8091        | 1486927       | 1.94 | 0.8  | 12639       | 1373446       | 2.04 | 0.9  | 0.86           | 0.10 *                  | 0.12           |
| FEMALE             | 8217        | 1495804       | 2.01 | 0.9  | 13850       | 1490713       | 2.13 | 0.9  | 0.88           | 0.11 *                  | 0.13           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4650        | 717124        | 2.01 | 0.9  | 8143        | 787667        | 2.10 | 0.9  | 0.90           | 0.09 *                  | 0.10           |
| MIDDLE             | 7786        | 1528158       | 1.98 | 0.9  | 12613       | 1402637       | 2.07 | 0.9  | 0.87           | 0.08 *                  | 0.10           |
| HIGH               | 3820        | 728606        | 1.93 | 0.8  | 6113        | 715909        | 2.11 | 0.9  | 0.84           | 0.19 *                  | 0.22           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12676       | 2493254       | 1.96 | 0.9  | 19616       | 2335861       | 2.06 | 0.9  | 0.86           | 0.10 *                  | 0.12           |
| BLACK              | 2000        | 242122        | 2.15 | 0.9  | 3576        | 326736        | 2.22 | 0.9  | 0.91           | 0.07                    | 0.07           |
| ASIAN-AMERICAN     | 190         | 27316         | 2.17 | 0.9  | 354         | 38608         | 2.10 | 0.9  | 0.89           | -0.07                   | -0.07          |
| AMERICAN INDIAN    | 181         | 29921         | 1.97 | 0.9  | 213         | 21880         | 2.19 | 0.9  | 0.94           | 0.22                    | 0.24           |
| MEXICAN-AMERICAN   | 532         | 69614         | 1.95 | 0.9  | 1832        | 97705         | 2.15 | 0.9  | 0.89           | 0.19 *                  | 0.22           |
| PUERTO RICAN       | 88          | 8989          | 1.82 | 0.9  | 284         | 16150         | 2.08 | 0.9  | 0.93           | 0.26                    | 0.28           |
| OTHER HISPANIC     | 117         | 17972         | 2.05 | 1.0  | 941         | 64261         | 2.11 | 0.9  | 0.92           | 0.06                    | 0.07           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14624       | 2648710       | 1.97 | 0.9  | 24087       | 2676511       | 2.08 | 0.9  | 0.87           | 0.11 *                  | 0.13           |
| PRIVATE            | 67          | 16549         | 1.83 | 0.9  | 861         | 102736        | 2.39 | 0.9  | 0.90           | 0.56 *                  | 0.62           |
| CATHOLIC           | 1013        | 231924        | 2.10 | 0.9  | 2652        | 197833        | 2.07 | 0.8  | 0.85           | -0.02                   | -0.03          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3539        | 790179        | 1.90 | 0.8  | 5562        | 682853        | 1.99 | 0.9  | 0.85           | 0.09 *                  | 0.11           |
| NORTH CENTRAL      | 4492        | 901533        | 2.01 | 0.9  | 7956        | 855008        | 2.10 | 0.9  | 0.87           | 0.09 *                  | 0.10           |
| SOUTH              | 5356        | 776034        | 1.98 | 0.9  | 9045        | 899447        | 2.11 | 0.9  | 0.88           | 0.13 *                  | 0.14           |
| WEST               | 2926        | 516001        | 2.03 | 0.9  | 5037        | 539773        | 2.16 | 0.9  | 0.89           | 0.12 *                  | 0.14           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5526        | 945888        | 1.94 | 0.9  | 10076       | 1091282       | 2.00 | 0.9  | 0.86           | 0.05 *                  | 0.06           |
| ACADEMIC           | 6735        | 1377566       | 1.97 | 0.8  | 10417       | 1125998       | 2.13 | 0.9  | 0.85           | 0.16 *                  | 0.18           |
| VOCATIONAL         | 4051        | 659991        | 2.04 | 0.9  | 6720        | 717250        | 2.16 | 0.9  | 0.93           | 0.12 *                  | 0.13           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4456        | 771620        | 2.01 | 0.9  | 6301        | 590509        | 2.13 | 0.9  | 0.90           | 0.12 *                  | 0.13           |
| SUBURBAN           | 7820        | 1516714       | 1.95 | 0.8  | 13322       | 1475567       | 2.08 | 0.9  | 0.86           | 0.12 *                  | 0.15           |
| RURAL              | 3607        | 627046        | 2.00 | 0.9  | 7977        | 911004        | 2.08 | 0.9  | 0.88           | 0.08 *                  | 0.09           |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-29

HOW OFTEN USED IN COURSES YOU ARE TAKING THIS YEAR: USING TEACHING MACHINES OR COMPUTER-ASSISTED INSTRUCTION  
(1=NEVER; 4=FREQUENTLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16280       | 2979350       | 1.48 | 0.8  | 27728       | 2990390       | 1.62 | 0.9  | 0.87           | 0.15 *                  | 0.17           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8094        | 1487273       | 1.39 | 0.7  | 12695       | 1380252       | 1.58 | 0.9  | 0.80           | 0.19 *                  | 0.24           |
| FEMALE             | 8181        | 1491060       | 1.56 | 0.9  | 13912       | 1495369       | 1.66 | 0.9  | 0.93           | 0.09 *                  | 0.10           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4625        | 714276        | 1.52 | 0.9  | 8203        | 792279        | 1.64 | 0.9  | 0.92           | 0.12 *                  | 0.13           |
| MIDDLE             | 7775        | 1526616       | 1.49 | 0.8  | 12650       | 1407388       | 1.63 | 0.9  | 0.88           | 0.14 *                  | 0.16           |
| HIGH               | 3825        | 728836        | 1.40 | 0.7  | 6130        | 717732        | 1.57 | 0.8  | 0.80           | 0.17 *                  | 0.21           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12664       | 2491624       | 1.46 | 0.8  | 19652       | 2340930       | 1.59 | 0.9  | 0.85           | 0.13 *                  | 0.15           |
| BLACK              | 1986        | 240052        | 1.60 | 0.9  | 3617        | 330047        | 1.75 | 1.0  | 0.98           | 0.15 *                  | 0.15           |
| ASIAN-AMERICAN     | 191         | 27429         | 1.46 | 0.8  | 353         | 38222         | 1.55 | 0.8  | 0.78           | 0.09                    | 0.12           |
| AMERICAN INDIAN    | 180         | 29703         | 1.67 | 0.9  | 215         | 22107         | 1.77 | 1.1  | 0.99           | 0.10                    | 0.10           |
| MEXICAN-AMERICAN   | 530         | 69581         | 1.47 | 0.8  | 1853        | 99277         | 1.70 | 1.0  | 0.94           | 0.23 *                  | 0.25           |
| PUERTO RICAN       | 88          | 9069          | 1.32 | 0.7  | 293         | 16957         | 1.87 | 1.0  | 0.97           | 0.55 *                  | 0.57           |
| OTHER HISPANIC     | 115         | 17730         | 1.58 | 0.9  | 950         | 65135         | 1.69 | 0.9  | 0.94           | 0.11                    | 0.12           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14599       | 2644201       | 1.47 | 0.8  | 24203       | 2687709       | 1.63 | 0.9  | 0.88           | 0.16 *                  | 0.19           |
| PRIVATE            | 67          | 16549         | 1.32 | 0.6  | 864         | 103684        | 1.40 | 0.7  | 0.70           | 0.08                    | 0.12           |
| CATHOLIC           | 1008        | 232295        | 1.54 | 0.8  | 2661        | 198997        | 1.58 | 0.8  | 0.83           | 0.05                    | 0.06           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3531        | 788601        | 1.50 | 0.8  | 5593        | 686895        | 1.64 | 0.9  | 0.89           | 0.14 *                  | 0.16           |
| NORTH CENTRAL      | 4489        | 902614        | 1.49 | 0.8  | 7976        | 857177        | 1.64 | 0.9  | 0.87           | 0.15 *                  | 0.17           |
| SOUTH              | 5344        | 773686        | 1.47 | 0.8  | 9106        | 904839        | 1.61 | 0.9  | 0.88           | 0.15 *                  | 0.16           |
| WEST               | 2916        | 514450        | 1.43 | 0.8  | 5053        | 541480        | 1.58 | 0.9  | 0.85           | 0.15 *                  | 0.18           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5525        | 944944        | 1.41 | 0.8  | 10119       | 1095445       | 1.51 | 0.8  | 0.81           | 0.10 *                  | 0.13           |
| ACADEMIC           | 6715        | 1374682       | 1.40 | 0.7  | 10450       | 1130718       | 1.57 | 0.8  | 0.78           | 0.17 *                  | 0.22           |
| VOCATIONAL         | 4039        | 659422        | 1.73 | 1.0  | 6763        | 720727        | 1.86 | 1.1  | 1.06           | 0.13 *                  | 0.12           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4440        | 769800        | 1.52 | 0.9  | 6366        | 595730        | 1.67 | 0.9  | 0.91           | 0.15 *                  | 0.16           |
| SUBURBAN           | 7817        | 1514582       | 1.46 | 0.8  | 13361       | 1481119       | 1.62 | 0.9  | 0.86           | 0.16 *                  | 0.19           |
| RURAL              | 3595        | 626438        | 1.44 | 0.8  | 8001        | 913542        | 1.58 | 0.9  | 0.86           | 0.14 *                  | 0.16           |

\*SIGNIFICANT AT .05 OR LESS

The average reported frequency of writing essays, themes, poetry or stories did not change between 1972 and 1980. Variations do appear, however, across race, SES, school type and curriculum. Small negative effect sizes are found for low SES (-0.11), Black (-0.10), and vocational (-0.15) students, while small positive effect sizes are shown for high SES (0.14) and academic (0.16) students. High SES students attending Catholic schools (0.33) or enrolled in academic programs (0.26) show even greater increases.

Participation in student-centered discussions had a moderate decrease among low SES students (-0.12) and Blacks (-0.16). Change was greatest for low SES Blacks (-0.21) and low SES students in the South (-0.18).

While the decline in working on a project or in a laboratory showed a mean effect size of -0.12, it is an insignificant -0.04 for males but a significant -0.18 for females. These sex differences are consistent across curricula. A small negative effect size is found for low and middle SES students, for those enrolled in the general curriculum (-0.12), and for students living in the South (-0.14).

Students generally report having individualized instruction more frequently in 1980 than in 1972. The increase was greatest, however, for high SES students, particularly those who are Black (0.38), for students attending private schools (0.62), and for Mexican-Americans (0.22). While the use of teaching machines and computer-assisted instruction is not as widespread as other instructional methods, a small significant effect size was found. This effect differed by gender, SES, race and curriculum.

To summarize, only three of the six instructional approaches had significant changes with a small effect size. Students tended to work on projects or in a laboratory somewhat less frequently in 1980 than in 1972 and to receive individualized instruction or use teaching machines or computer-assisted instruction somewhat more frequently. The largest increases in the latter two categories were found among minority and high SES students. Women were involved less in projects and laboratory work than men in 1980. Although men gained greater access to teaching machines and computer-assisted instruction, they still used these approaches slightly less frequently than women in 1980.

#### D. STUDENT EVALUATIONS OF SCHOOL FACILITIES AND EDUCATIONAL EXPERIENCES

The student questionnaire provided information about students' perception of the quality of their school and their educational program and about school-related factors that interfered with their education.

##### 1. Student Ratings of Schools

Students answered questions evaluating the condition of school facilities, quality of academic instruction, and reputation of the school

in the community. The ratings ranged from 1 = Poor to 4 = Excellent. Table 4-30 summarizes the mean ratings and change measures for five common variables in 1972 and 1980. In 1972, the ratings ranged from 2.99 (good) for reputation of the school in the community to 2.52 (between fair and good)

Table 4-30

Student Ratings of Schools

|                                       | Mean Response |      | Difference | Effect |
|---------------------------------------|---------------|------|------------|--------|
|                                       | 1972          | 1980 | 1980-1972  | Size   |
| Reputation in Community               | 2.99          | 2.86 | -0.13*     | -0.15  |
| Condition of Buildings and Classrooms | 2.86          | 2.73 | -0.12*     | -0.15  |
| Quality of Academic Instruction       | 2.78          | 2.72 | -0.05*     | -0.07  |
| Library Facilities                    | 2.74          | 2.81 | 0.07*      | 0.08   |
| Teacher Interest in Students          | 2.52          | 2.57 | 0.05*      | 0.06   |

\*Significant at .05 or less

for teacher interest in students. Three of the categories--library facilities, quality of instruction, and teacher interest--show little overall change between 1972 and 1980, while two--condition of buildings and reputation of school--have a small negative effect size.

Cross tabulations by the classification variables show some variation in the effect sizes. (See Tables 4-31 through 4-35.) For example, students living in the Northeast report a moderate, negative change in school reputation in the community. The condition of school buildings and classrooms also showed a moderate decline for Other Hispanic students and schools located in the Northeast. While change in the quality of academic instruction was negligible for all students, a small significant decline is found among female students in general (-0.16) and vocational (-0.17) curricula, low SES Whites (-0.15), and low SES students living in suburban (-0.15) communities, in rural (-0.19) communities, and in the South (-0.21). A small significant increase in teacher interest in students is reported by those who are high SES, are enrolled in academic programs, or attend Catholic schools.

2. Student Evaluation of Program

The second set of questions asked students whether their high schools provided them with adequate programs. Table 4-36 summarizes their responses to the following statements:



TABLE 4-31

STUDENT RATING OF SCHOOL: REPUTATION IN COMMUNITY  
(1=POOR; 4=EXCELLENT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 15352       | 2811646       | 2.99 | 0.9  | 26251       | 2835188       | 2.86 | 0.9  | 0.90           | -0.13 *                 | -0.15          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7596        | 1396787       | 2.97 | 0.9  | 12175       | 1321000       | 2.86 | 0.9  | 0.91           | -0.11 *                 | -0.12          |
| FEMALE             | 7751        | 1413842       | 3.01 | 0.9  | 13330       | 1438250       | 2.86 | 0.9  | 0.89           | -0.15 *                 | -0.17          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4315        | 667781        | 2.86 | 0.9  | 7587        | 733707        | 2.68 | 0.9  | 0.90           | -0.17 *                 | -0.19          |
| MIDDLE             | 7365        | 1447688       | 2.99 | 0.9  | 12130       | 1347262       | 2.86 | 0.9  | 0.89           | -0.13 *                 | -0.14          |
| HIGH               | 3619        | 687274        | 3.12 | 0.9  | 5969        | 698497        | 3.05 | 0.9  | 0.88           | -0.06 *                 | -0.07          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 11994       | 2359262       | 3.03 | 0.9  | 18921       | 2249808       | 2.90 | 0.9  | 0.88           | -0.13 *                 | -0.15          |
| BLACK              | 1853        | 221966        | 2.70 | 1.0  | 3281        | 298481        | 2.68 | 1.0  | 0.95           | -0.02                   | -0.02          |
| ASIAN-AMERICAN     | 170         | 24596         | 2.73 | 1.0  | 332         | 36579         | 2.87 | 0.9  | 0.94           | 0.14                    | 0.14           |
| AMERICAN INDIAN    | 166         | 28109         | 2.77 | 0.9  | 180         | 18650         | 2.63 | 0.9  | 0.93           | -0.14                   | -0.15          |
| MEXICAN-AMERICAN   | 495         | 64751         | 2.83 | 0.9  | 1718        | 92791         | 2.70 | 0.9  | 0.93           | -0.14                   | -0.15          |
| PUERTO RICAN       | 81          | 8192          | 2.40 | 1.0  | 275         | 15715         | 2.67 | 1.0  | 0.97           | 0.27                    | 0.28           |
| OTHER HISPANIC     | 110         | 17161         | 3.00 | 0.9  | 898         | 60427         | 2.84 | 0.9  | 0.92           | -0.16                   | -0.17          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 13736       | 2488779       | 2.96 | 0.9  | 22829       | 2542238       | 2.80 | 0.9  | 0.90           | -0.16 *                 | -0.17          |
| PRIVATE            | 62          | 15198         | 3.34 | 0.7  | 847         | 100295        | 3.21 | 0.8  | 0.82           | -0.12                   | -0.15          |
| CATHOLIC           | 990         | 227436        | 3.37 | 0.8  | 2575        | 192655        | 3.41 | 0.7  | 0.74           | 0.04                    | 0.06           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3308        | 740393        | 3.04 | 0.9  | 5319        | 655590        | 2.81 | 0.9  | 0.91           | -0.24 *                 | -0.26          |
| NORTH CENTRAL      | 4240        | 853750        | 2.93 | 0.9  | 7610        | 818790        | 2.87 | 0.9  | 0.89           | -0.06                   | -0.07          |
| SOUTH              | 5098        | 738302        | 3.06 | 0.9  | 8546        | 848092        | 2.89 | 0.9  | 0.88           | -0.17 *                 | -0.19          |
| WEST               | 2706        | 479201        | 2.91 | 0.9  | 4776        | 512716        | 2.85 | 0.9  | 0.91           | -0.06                   | -0.07          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5169        | 883986        | 2.88 | 0.9  | 9460        | 1021316       | 2.74 | 0.9  | 0.89           | -0.14 *                 | -0.16          |
| ACADEMIC           | 6394        | 1307092       | 3.10 | 0.9  | 10154       | 1098377       | 3.05 | 0.9  | 0.88           | -0.05 *                 | -0.06          |
| VOCATIONAL         | 3788        | 620265        | 2.91 | 0.9  | 6273        | 674802        | 2.73 | 0.9  | 0.90           | -0.18 *                 | -0.20          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4184        | 726816        | 2.90 | 0.9  | 5959        | 561356        | 2.78 | 1.0  | 0.95           | -0.12 *                 | -0.13          |
| SUBURBAN           | 7385        | 1430696       | 3.06 | 0.9  | 12714       | 1407914       | 2.92 | 0.9  | 0.89           | -0.14 *                 | -0.15          |
| RURAL              | 3412        | 595187        | 2.95 | 0.8  | 7578        | 865918        | 2.80 | 0.9  | 0.86           | -0.15 *                 | -0.17          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-32

STUDENT RATING OF SCHOOL: CONDITION OF BUILDING  
(1=POOR; 4=EXCELLENT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16511       | 3014567       | 2.86 | 0.9  | 27468       | 2962384       | 2.73 | 0.9  | 0.86           | -0.12 *                 | -0.15          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8188        | 1502015       | 2.89 | 0.9  | 12703       | 1379840       | 2.77 | 0.9  | 0.87           | -0.11 *                 | -0.13          |
| FEMALE             | 8318        | 1511535       | 2.83 | 0.8  | 13947       | 1499238       | 2.71 | 0.8  | 0.84           | -0.13 *                 | -0.15          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4741        | 729265        | 2.74 | 0.9  | 8129        | 784932        | 2.62 | 0.9  | 0.86           | -0.11 *                 | -0.13          |
| MIDDLE             | 7859        | 1541683       | 2.86 | 0.9  | 12586       | 1399480       | 2.74 | 0.9  | 0.86           | -0.12 *                 | -0.14          |
| HIGH               | 3848        | 733111        | 2.98 | 0.8  | 6109        | 715245        | 2.88 | 0.8  | 0.82           | -0.10 *                 | -0.13          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12766       | 2511438       | 2.90 | 0.9  | 19574       | 2330799       | 2.78 | 0.8  | 0.84           | -0.12 *                 | -0.14          |
| BLACK              | 2072        | 249769        | 2.55 | 0.9  | 3576        | 325870        | 2.50 | 0.9  | 0.87           | -0.06                   | -0.07          |
| ASIAN-AMERICAN     | 190         | 27039         | 2.65 | 0.7  | 353         | 38467         | 2.76 | 0.8  | 0.78           | 0.10                    | 0.13           |
| AMERICAN INDIAN    | 185         | 30621         | 2.82 | 0.9  | 204         | 20961         | 2.55 | 0.9  | 0.92           | -0.27                   | -0.30          |
| MEXICAN-AMERICAN   | 550         | 72509         | 2.74 | 0.9  | 1827        | 97273         | 2.61 | 0.8  | 0.86           | -0.12                   | -0.14          |
| PUERTO RICAN       | 92          | 9200          | 2.54 | 0.9  | 295         | 17101         | 2.52 | 0.8  | 0.82           | -0.03                   | -0.03          |
| OTHER HISPANIC     | 122         | 18844         | 3.01 | 0.8  | 938         | 63734         | 2.71 | 0.9  | 0.85           | -0.30 *                 | -0.36          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14797       | 2674234       | 2.85 | 0.9  | 23954       | 2662393       | 2.72 | 0.9  | 0.86           | -0.13 *                 | -0.15          |
| PRIVATE            | 67          | 16549         | 3.04 | 0.9  | 865         | 103530        | 2.83 | 0.8  | 0.77           | -0.21                   | -0.27          |
| CATHOLIC           | 1022        | 234931        | 3.02 | 0.8  | 2649        | 196460        | 2.87 | 0.8  | 0.79           | -0.15 *                 | -0.19          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3582        | 797143        | 2.91 | 0.8  | 5572        | 684237        | 2.69 | 0.8  | 0.84           | -0.21 *                 | -0.25          |
| NORTH CENTRAL      | 4533        | 910429        | 2.85 | 0.9  | 7920        | 851412        | 2.77 | 0.8  | 0.86           | -0.09 *                 | -0.10          |
| SOUTH              | 5437        | 785716        | 2.83 | 0.9  | 8976        | 890967        | 2.75 | 0.9  | 0.87           | -0.08 *                 | -0.09          |
| WEST               | 2959        | 521280        | 2.84 | 0.8  | 5000        | 535768        | 2.71 | 0.9  | 0.84           | -0.13 *                 | -0.16          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5603        | 957822        | 2.78 | 0.9  | 9991        | 1080186       | 2.66 | 0.9  | 0.86           | -0.12 *                 | -0.14          |
| ACADEMIC           | 6768        | 1382246       | 2.93 | 0.9  | 10402       | 1125119       | 2.84 | 0.8  | 0.84           | -0.09 *                 | -0.11          |
| VOCATIONAL         | 4139        | 674197        | 2.82 | 0.9  | 6679        | 714060        | 2.68 | 0.9  | 0.85           | -0.15 *                 | -0.17          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4517        | 780706        | 2.79 | 0.9  | 6270        | 588373        | 2.63 | 0.8  | 0.85           | -0.17 *                 | -0.19          |
| SUBURBAN           | 7903        | 1528727       | 2.93 | 0.8  | 13257       | 1466637       | 2.79 | 0.8  | 0.84           | -0.14 *                 | -0.16          |
| RURAL              | 3646        | 633765        | 2.79 | 0.9  | 7941        | 907373        | 2.72 | 0.9  | 0.88           | -0.07 *                 | -0.08          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-33

STUDENT RATING OF SCHOOL: ACADEMIC INSTRUCTION  
(1=POOR; 4=EXCELLENT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 14937       | 2749599       | 2.78 | 0.8  | 25781       | 2790945       | 2.72 | 0.8  | 0.78           | -0.05 *                 | -0.07          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7550        | 1394345       | 2.76 | 0.8  | 12122       | 1319515       | 2.75 | 0.8  | 0.80           | -0.02                   | -0.02          |
| FEMALE             | 7382        | 1354238       | 2.79 | 0.8  | 12935       | 1396757       | 2.71 | 0.8  | 0.76           | -0.08 *                 | -0.11          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4000        | 617536        | 2.69 | 0.8  | 7279        | 704554        | 2.59 | 0.8  | 0.79           | -0.10 *                 | -0.13          |
| MIDDLE             | 7187        | 1418905       | 2.78 | 0.8  | 11985       | 1333255       | 2.72 | 0.8  | 0.77           | -0.06 *                 | -0.08          |
| HIGH               | 3697        | 703976        | 2.84 | 0.8  | 5985        | 700481        | 2.88 | 0.8  | 0.78           | 0.03                    | 0.04           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 11766       | 2321659       | 2.80 | 0.8  | 18612       | 2217775       | 2.74 | 0.8  | 0.77           | -0.05 *                 | -0.07          |
| BLACK              | 1714        | 205858        | 2.67 | 0.8  | 3226        | 293223        | 2.64 | 0.8  | 0.82           | -0.03                   | -0.03          |
| ASIAN-AMERICAN     | 175         | 25073         | 2.79 | 0.8  | 339         | 36801         | 2.79 | 0.8  | 0.78           | -0.01                   | -0.01          |
| AMERICAN INDIAN    | 162         | 27388         | 2.67 | 0.7  | 188         | 19420         | 2.61 | 0.9  | 0.81           | -0.06                   | -0.07          |
| MEXICAN-AMERICAN   | 473         | 62255         | 2.69 | 0.8  | 1652        | 88998         | 2.63 | 0.8  | 0.80           | -0.06                   | -0.08          |
| PUERTO RICAN       | 73          | 7323          | 2.55 | 0.8  | 267         | 15596         | 2.59 | 0.8  | 0.83           | 0.04                    | 0.04           |
| OTHER HISPANIC     | 104         | 16251         | 2.80 | 0.9  | 874         | 58416         | 2.67 | 0.8  | 0.82           | -0.13                   | -0.15          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 13332       | 2426346       | 2.76 | 0.8  | 22333       | 2496783       | 2.69 | 0.8  | 0.77           | -0.07 *                 | -0.09          |
| PRIVATE            | 65          | 16012         | 2.95 | 0.8  | 854         | 101567        | 3.13 | 0.8  | 0.82           | 0.18                    | 0.22           |
| CATHOLIC           | 980         | 226737        | 3.01 | 0.8  | 2594        | 192595        | 2.99 | 0.8  | 0.80           | -0.02                   | -0.02          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3238        | 731445        | 2.85 | 0.8  | 5246        | 648292        | 2.80 | 0.8  | 0.77           | -0.05                   | -0.06          |
| NORTH CENTRAL      | 4153        | 836726        | 2.75 | 0.8  | 7485        | 806660        | 2.70 | 0.8  | 0.77           | -0.05                   | -0.06          |
| SOUTH              | 4842        | 702701        | 2.75 | 0.8  | 8354        | 827940        | 2.68 | 0.8  | 0.80           | -0.07 *                 | -0.09          |
| WEST               | 2704        | 478728        | 2.75 | 0.8  | 4696        | 508053        | 2.73 | 0.8  | 0.78           | -0.02                   | -0.02          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 4883        | 834600        | 2.64 | 0.8  | 9209        | 998259        | 2.55 | 0.8  | 0.77           | -0.09 *                 | -0.12          |
| ACADEMIC           | 6580        | 1345808       | 2.89 | 0.8  | 10214       | 1106129       | 2.94 | 0.8  | 0.75           | 0.05 *                  | 0.06           |
| VOCATIONAL         | 3473        | 568888        | 2.70 | 0.8  | 6005        | 646761        | 2.63 | 0.8  | 0.78           | -0.07 *                 | -0.09          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4080        | 709043        | 2.80 | 0.8  | 5794        | 545930        | 2.75 | 0.8  | 0.78           | -0.05                   | -0.07          |
| SUBURBAN           | 7237        | 1411969       | 2.80 | 0.8  | 12577       | 1393350       | 2.77 | 0.8  | 0.78           | -0.03                   | -0.04          |
| RURAL              | 3262        | 570747        | 2.70 | 0.8  | 7410        | 851665        | 2.63 | 0.8  | 0.78           | -0.06 *                 | -0.08          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-34

STUDENT RATING OF SCHOOL: LIBRARY  
(1=POOR; 4=EXCELLENT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16249       | 2975642       | 2.74 | 0.9  | 27162       | 2931239       | 2.81 | 0.9  | 0.86           | 0.07 *                  | 0.08           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8070        | 1484003       | 2.75 | 0.9  | 12573       | 1365851       | 2.82 | 0.9  | 0.87           | 0.07 *                  | 0.08           |
| FEMALE             | 8174        | 1490623       | 2.72 | 0.8  | 13788       | 1483232       | 2.80 | 0.8  | 0.85           | 0.08 *                  | 0.09           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4634        | 714745        | 2.79 | 0.8  | 8028        | 774977        | 2.83 | 0.9  | 0.85           | 0.04                    | 0.05           |
| MIDDLE             | 7731        | 1521111       | 2.73 | 0.9  | 12441       | 1384000       | 2.81 | 0.9  | 0.86           | 0.08 *                  | 0.10           |
| HIGH               | 3824        | 729557        | 2.71 | 0.9  | 6066        | 710499        | 2.80 | 0.9  | 0.87           | 0.09 *                  | 0.10           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12613       | 2484536       | 2.73 | 0.9  | 19362       | 2304966       | 2.81 | 0.9  | 0.85           | 0.08 *                  | 0.10           |
| BLACK              | 1994        | 241271        | 2.75 | 0.8  | 3524        | 322085        | 2.81 | 0.9  | 0.87           | 0.06                    | 0.07           |
| ASIAN-AMERICAN     | 190         | 27291         | 2.71 | 0.9  | 351         | 38334         | 2.76 | 0.8  | 0.87           | 0.05                    | 0.06           |
| AMERICAN INDIAN    | 180         | 29863         | 2.76 | 0.9  | 204         | 21005         | 2.69 | 0.9  | 0.89           | -0.07                   | -0.08          |
| MEXICAN-AMERICAN   | 534         | 70481         | 2.92 | 0.9  | 1809        | 96661         | 2.79 | 0.8  | 0.85           | -0.12                   | -0.15          |
| PUERTO RICAN       | 91          | 9314          | 2.82 | 0.9  | 289         | 16845         | 2.84 | 0.8  | 0.85           | 0.02                    | 0.03           |
| OTHER HISPANIC     | 117         | 18156         | 2.97 | 0.8  | 929         | 63176         | 2.80 | 0.9  | 0.87           | -0.17                   | -0.19          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14560       | 2638684       | 2.75 | 0.9  | 23674       | 2633000       | 2.83 | 0.9  | 0.85           | 0.08 *                  | 0.10           |
| PRIVATE            | 67          | 16549         | 2.85 | 0.9  | 860         | 102852        | 2.57 | 1.0  | 0.96           | -0.28                   | -0.29          |
| CATHOLIC           | 1015        | 233666        | 2.55 | 0.8  | 2628        | 195388        | 2.63 | 0.9  | 0.86           | 0.08                    | 0.09           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3527        | 788512        | 2.73 | 0.9  | 5475        | 674148        | 2.78 | 0.9  | 0.86           | 0.06                    | 0.07           |
| NORTH CENTRAL      | 4455        | 896157        | 2.72 | 0.8  | 7833        | 843781        | 2.84 | 0.8  | 0.85           | 0.12 *                  | 0.14           |
| SOUTH              | 5357        | 776088        | 2.76 | 0.9  | 8891        | 881738        | 2.81 | 0.9  | 0.88           | 0.05                    | 0.06           |
| WEST               | 2910        | 514886        | 2.75 | 0.9  | 4963        | 531572        | 2.80 | 0.8  | 0.85           | 0.05                    | 0.06           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5529        | 946807        | 2.76 | 0.9  | 9873        | 1067174       | 2.79 | 0.9  | 0.86           | 0.03                    | 0.04           |
| ACADEMIC           | 6719        | 1375090       | 2.69 | 0.9  | 10347       | 1119592       | 2.79 | 0.9  | 0.87           | 0.10 *                  | 0.12           |
| VOCATIONAL         | 4000        | 653443        | 2.82 | 0.8  | 6555        | 702222        | 2.88 | 0.8  | 0.84           | 0.06 *                  | 0.07           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4439        | 769061        | 2.79 | 0.8  | 6189        | 582448        | 2.83 | 0.9  | 0.85           | 0.04                    | 0.05           |
| SUBURBAN           | 7771        | 1508063       | 2.74 | 0.9  | 13098       | 1449792       | 2.84 | 0.8  | 0.85           | 0.10 *                  | 0.12           |
| RURAL              | 3613        | 629695        | 2.66 | 0.9  | 7875        | 898999        | 2.75 | 0.9  | 0.88           | 0.07 *                  | 0.08           |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-35

STUDENT RATING OF SCHOOL: TEACHER INTEREST IN STUDENTS  
(1=POOR; 4=EXCELLENT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16209       | 2966051       | 2.52 | 0.9  | 27021       | 2917070       | 2.57 | 0.9  | 0.88           | 0.05 *                  | 0.06           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7993        | 1469767       | 2.51 | 0.9  | 12469       | 1357179       | 2.59 | 0.9  | 0.88           | 0.08 *                  | 0.10           |
| FEMALE             | 8211        | 1495267       | 2.54 | 0.9  | 13765       | 1479368       | 2.56 | 0.9  | 0.87           | 0.02                    | 0.03           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4637        | 716112        | 2.52 | 0.9  | 7959        | 770254        | 2.49 | 0.9  | 0.87           | -0.03                   | -0.03          |
| MIDDLE             | 7730        | 1518674       | 2.51 | 0.9  | 12390       | 1377113       | 2.55 | 0.9  | 0.88           | 0.04                    | 0.05           |
| HIGH               | 3784        | 721141        | 2.55 | 0.9  | 6053        | 708836        | 2.73 | 0.9  | 0.86           | 0.18 *                  | 0.20           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12581       | 2476375       | 2.53 | 0.9  | 19322       | 2300553       | 2.59 | 0.9  | 0.87           | 0.06 *                  | 0.07           |
| BLACK              | 2007        | 242321        | 2.47 | 0.9  | 3475        | 316935        | 2.49 | 0.9  | 0.88           | 0.02                    | 0.02           |
| ASIAN-AMERICAN     | 186         | 26769         | 2.64 | 0.9  | 353         | 38316         | 2.66 | 0.9  | 0.87           | 0.01                    | 0.01           |
| AMERICAN INDIAN    | 181         | 29840         | 2.31 | 1.0  | 196         | 20224         | 2.47 | 0.9  | 0.93           | 0.16                    | 0.17           |
| MEXICAN-AMERICAN   | 523         | 69423         | 2.49 | 0.9  | 1795        | 96541         | 2.54 | 0.9  | 0.88           | 0.06                    | 0.07           |
| PUERTO RICAN       | 92          | 9450          | 2.51 | 1.0  | 288         | 16640         | 2.66 | 0.9  | 0.92           | 0.15                    | 0.16           |
| OTHER HISPANIC     | 115         | 17719         | 2.61 | 0.8  | 918         | 61550         | 2.58 | 0.9  | 0.88           | -0.04                   | -0.04          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14521       | 2629142       | 2.49 | 0.9  | 23539       | 2619766       | 2.52 | 0.9  | 0.87           | 0.03                    | 0.03           |
| PRIVATE            | 67          | 16549         | 2.95 | 0.8  | 861         | 102922        | 3.15 | 0.9  | 0.87           | 0.20                    | 0.23           |
| CATHOLIC           | 1014        | 233499        | 2.82 | 0.9  | 2621        | 194382        | 2.94 | 0.8  | 0.86           | 0.12 *                  | 0.14           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3521        | 785166        | 2.53 | 0.9  | 5475        | 674136        | 2.60 | 0.9  | 0.87           | 0.06 *                  | 0.07           |
| NORTH CENTRAL      | 4443        | 893979        | 2.49 | 0.9  | 7798        | 838666        | 2.53 | 0.9  | 0.87           | 0.05                    | 0.05           |
| SOUTH              | 5348        | 774015        | 2.54 | 0.9  | 8827        | 876689        | 2.56 | 0.9  | 0.89           | 0.02                    | 0.02           |
| WEST               | 2897        | 512891        | 2.55 | 0.9  | 4921        | 527579        | 2.63 | 0.9  | 0.88           | 0.09 *                  | 0.10           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5497        | 940622        | 2.44 | 0.9  | 9787        | 1058702       | 2.43 | 0.9  | 0.87           | -0.01                   | -0.01          |
| ACADEMIC           | 6683        | 1366799       | 2.61 | 0.9  | 10315       | 1116194       | 2.78 | 0.8  | 0.85           | 0.17 *                  | 0.20           |
| VOCATIONAL         | 4028        | 658327        | 2.45 | 0.9  | 6536        | 700023        | 2.47 | 0.9  | 0.88           | 0.02                    | 0.02           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4430        | 768146        | 2.54 | 0.9  | 6168        | 579997        | 2.57 | 0.9  | 0.88           | 0.03                    | 0.03           |
| SUBURBAN           | 7764        | 1504751       | 2.52 | 0.9  | 13054       | 1445125       | 2.60 | 0.9  | 0.87           | 0.08 *                  | 0.09           |
| RURAL              | 3589        | 624367        | 2.52 | 0.9  | 7799        | 891947        | 2.53 | 0.9  | 0.88           | 0.01                    | 0.01           |

\*SIGNIFICANT AT .05 OR LESS

Table 4-36

|                                                                                       | Mean Response |      | Difference<br>1980-1972 | Effect<br>Size |
|---------------------------------------------------------------------------------------|---------------|------|-------------------------|----------------|
|                                                                                       | 1972          | 1980 |                         |                |
| My high school should have placed more emphasis on academic subjects.                 | 2.52          | 2.13 | -0.39*                  | -0.46          |
| My high school did not offer enough practical work experience.                        | 2.13          | 2.17 | 0.04*                   | 0.04           |
| My high school should have placed more emphasis on vocational and technical programs. | 2.06          | 1.98 | -0.08*                  | -0.09          |
| My high school provided me with counseling that will help me continue my education.   | 2.68          | 2.78 | +0.10*                  | +0.10          |
| My high school provided me with counseling that will help me find employment.         | 2.16          | 2.43 | +0.27                   | +0.26          |

\*Significant at .05 or less

The responses ranged from 1 to 4 with 1 showing negative assessment of the high school (agreement with the first three questions and disagreement with the last two) and 4 showing a positive assessment of the high school (disagreement with the first three questions and agreement with the last two). In 1972, students were generally neutral about the scope of the basic academic program and of counseling for further education. They were slightly negative regarding technical education, and counseling to find employment. By 1980, students' assessments of the basic academic program had dropped substantially, but they had become slightly more satisfied with their school's counseling services, especially with regard to finding work.

Cross-tabulations show that growing dissatisfaction with schools' emphasis on basic academic subjects was shared by students of all SES and racial/ethnic groups, and by those enrolled in all three types of schools and three kinds of curriculum. High SES students and those enrolled in Catholic schools reported the largest increase in ratings for education-oriented counseling services, while males, high SES students, and those enrolled in academic programs had the largest positive change for work-oriented counseling. In the latter case, however, the mean rating for these groups still remained substantially below ratings given by low SES and vocational education students in 1980, primarily because of the lower interest in post high school employment among academic students. (See Tables 4-37 through 4-41.)



TABLE 4-37

HIGH SCHOOL SHOULD HAVE PLACED MORE EMPHASIS ON BASIC ACADEMIC SUBJECTS  
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 14563       | 2651072       | 2.52 | 0.9  | 25676       | 2772524       | 2.13 | 0.8  | 0.84           | -0.39 *                 | -0.47          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7217        | 1319495       | 2.53 | 0.9  | 11689       | 1273699       | 2.14 | 0.8  | 0.85           | -0.38 *                 | -0.45          |
| FEMALE             | 7343        | 1331030       | 2.51 | 0.9  | 13056       | 1404758       | 2.12 | 0.8  | 0.84           | -0.39 *                 | -0.47          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4252        | 651012        | 2.38 | 0.9  | 7655        | 739636        | 2.10 | 0.8  | 0.83           | -0.28 *                 | -0.34          |
| MIDDLE             | 6932        | 1357913       | 2.55 | 0.8  | 11793       | 1311942       | 2.14 | 0.8  | 0.83           | -0.41 *                 | -0.49          |
| HIGH               | 3328        | 633107        | 2.60 | 0.9  | 5593        | 659241        | 2.14 | 0.9  | 0.87           | -0.46 *                 | -0.53          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 11220       | 2200988       | 2.58 | 0.8  | 18220       | 2175560       | 2.18 | 0.8  | 0.83           | -0.40 *                 | -0.48          |
| BLACK              | 1869        | 226743        | 2.13 | 0.8  | 3326        | 303619        | 1.91 | 0.8  | 0.84           | -0.22 *                 | -0.26          |
| ASIAN-AMERICAN     | 177         | 25406         | 2.29 | 0.8  | 348         | 37796         | 1.72 | 0.7  | 0.77           | -0.57 *                 | -0.74          |
| AMERICAN INDIAN    | 166         | 27285         | 2.32 | 0.9  | 193         | 19626         | 2.00 | 0.8  | 0.84           | -0.31 *                 | -0.37          |
| MEXICAN-AMERICAN   | 483         | 63102         | 2.22 | 0.8  | 1737        | 92082         | 2.00 | 0.8  | 0.81           | -0.21 *                 | -0.26          |
| PUERTO RICAN       | 84          | 8715          | 2.02 | 0.8  | 280         | 16412         | 1.92 | 0.8  | 0.80           | -0.10                   | -0.13          |
| OTHER HISPANIC     | 104         | 16107         | 2.30 | 0.8  | 873         | 60303         | 2.07 | 0.8  | 0.85           | -0.23                   | -0.27          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 13134       | 2369596       | 2.51 | 0.9  | 22613       | 2506762       | 2.09 | 0.8  | 0.83           | -0.41 *                 | -0.50          |
| PRIVATE            | 59          | 14728         | 2.83 | 0.9  | 715         | 89019         | 2.52 | 1.0  | 0.96           | -0.31                   | -0.33          |
| CATHOLIC           | 811         | 186337        | 2.72 | 0.8  | 2348        | 176743        | 2.42 | 0.9  | 0.91           | -0.30 *                 | -0.33          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3051        | 679733        | 2.69 | 0.8  | 5132        | 627024        | 2.22 | 0.9  | 0.86           | -0.47 *                 | -0.55          |
| NORTH CENTRAL      | 4039        | 810119        | 2.54 | 0.8  | 7392        | 801966        | 2.15 | 0.8  | 0.83           | -0.40 *                 | -0.48          |
| SOUTH              | 4816        | 692715        | 2.36 | 0.9  | 8431        | 838976        | 2.07 | 0.8  | 0.83           | -0.29 *                 | -0.35          |
| WEST               | 2657        | 468505        | 2.47 | 0.9  | 4721        | 504559        | 2.07 | 0.8  | 0.83           | -0.39 *                 | -0.48          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5021        | 855964        | 2.50 | 0.9  | 9416        | 1019267       | 2.12 | 0.8  | 0.82           | -0.38 *                 | -0.47          |
| ACADEMIC           | 5839        | 1192008       | 2.53 | 0.9  | 9585        | 1041778       | 2.10 | 0.9  | 0.86           | -0.42 *                 | -0.49          |
| VOCATIONAL         | 3702        | 602798        | 2.53 | 0.9  | 6307        | 671559        | 2.17 | 0.8  | 0.84           | -0.36 *                 | -0.43          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3985        | 687137        | 2.50 | 0.9  | 5882        | 548538        | 2.04 | 0.8  | 0.84           | -0.46 *                 | -0.55          |
| SUBURBAN           | 6920        | 1334139       | 2.57 | 0.9  | 12341       | 1372281       | 2.16 | 0.8  | 0.85           | -0.41 *                 | -0.48          |
| RURAL              | 3276        | 568251        | 2.44 | 0.8  | 7453        | 851706        | 2.14 | 0.8  | 0.82           | -0.31 *                 | -0.38          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-38

HIGH SCHOOL DID NOT OFFER ENOUGH PRACTICAL WORK EXPERIENCE  
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 14242       | 2589751       | 2.13 | 0.9  | 24999       | 2686542       | 2.17 | 1.0  | 0.95           | 0.04 *                  | 0.04           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 6967        | 1275800       | 2.09 | 0.9  | 11303       | 1224892       | 2.14 | 1.0  | 0.94           | 0.04                    | 0.05           |
| FEMALE             | 7271        | 1313186       | 2.17 | 1.0  | 12752       | 1366671       | 2.21 | 1.0  | 0.96           | 0.04                    | 0.04           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4280        | 657932        | 2.14 | 1.0  | 7643        | 737647        | 2.09 | 1.0  | 0.96           | -0.05                   | -0.05          |
| MIDDLE             | 6809        | 1330381       | 2.10 | 0.9  | 11445       | 1271496       | 2.17 | 1.0  | 0.95           | 0.06 *                  | 0.07           |
| HIGH               | 3107        | 593439        | 2.19 | 0.9  | 5269        | 615327        | 2.29 | 1.0  | 0.93           | 0.10 *                  | 0.11           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 10952       | 2149796       | 2.13 | 0.9  | 17575       | 2094280       | 2.19 | 1.0  | 0.94           | 0.06 *                  | 0.07           |
| BLACK              | 1840        | 220657        | 2.12 | 1.0  | 3356        | 304232        | 2.04 | 1.0  | 1.00           | -0.08                   | -0.08          |
| ASIAN-AMERICAN     | 153         | 21530         | 2.12 | 0.8  | 328         | 35541         | 2.34 | 0.9  | 0.88           | 0.22                    | 0.25           |
| AMERICAN INDIAN    | 164         | 27659         | 2.21 | 0.9  | 197         | 19773         | 1.99 | 0.9  | 0.90           | -0.23                   | -0.25          |
| MEXICAN-AMERICAN   | 485         | 63419         | 2.27 | 0.9  | 1715        | 90986         | 2.19 | 1.0  | 0.96           | -0.09                   | -0.09          |
| PUERTO RICAN       | 79          | 8044          | 2.20 | 0.9  | 276         | 15832         | 2.16 | 1.1  | 1.03           | -0.04                   | -0.03          |
| OTHER HISPANIC     | 99          | 15203         | 2.28 | 1.0  | 867         | 59958         | 2.25 | 1.0  | 1.00           | -0.04                   | -0.04          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 12754       | 2296583       | 2.14 | 0.9  | 21832       | 2416381       | 2.19 | 1.0  | 0.95           | 0.05 *                  | 0.06           |
| PRIVATE            | 60          | 14613         | 1.93 | 0.8  | 731         | 89578         | 2.06 | 1.0  | 0.95           | 0.13                    | 0.14           |
| CATHOLIC           | 872         | 198996        | 1.94 | 0.9  | 2436        | 180584        | 1.93 | 0.9  | 0.88           | -0.01                   | -0.01          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 2986        | 661154        | 2.08 | 0.9  | 4988        | 608494        | 2.07 | 0.9  | 0.94           | -0.02                   | -0.02          |
| NORTH CENTRAL      | 3975        | 798184        | 2.08 | 0.9  | 7192        | 774274        | 2.20 | 0.9  | 0.93           | 0.12 *                  | 0.13           |
| SOUTH              | 4670        | 670085        | 2.18 | 0.9  | 8227        | 814327        | 2.15 | 1.0  | 0.96           | -0.03                   | -0.03          |
| WEST               | 2611        | 460328        | 2.21 | 1.0  | 4592        | 489448        | 2.29 | 1.0  | 0.97           | 0.08 *                  | 0.08           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 4947        | 843835        | 2.05 | 0.9  | 9269        | 1001326       | 2.07 | 0.9  | 0.93           | 0.03                    | 0.03           |
| ACADEMIC           | 5464        | 1120364       | 2.15 | 0.9  | 9028        | 971391        | 2.27 | 1.0  | 0.94           | 0.12 *                  | 0.13           |
| VOCATIONAL         | 3831        | 625553        | 2.22 | 1.0  | 6332        | 673693        | 2.17 | 1.0  | 1.00           | -0.05                   | -0.05          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3858        | 663451        | 2.20 | 1.0  | 5729        | 535756        | 2.24 | 1.0  | 0.98           | 0.04                    | 0.04           |
| SUBURBAN           | 6726        | 1299785       | 2.14 | 0.9  | 11985       | 1320697       | 2.21 | 1.0  | 0.95           | 0.07 *                  | 0.08           |
| RURAL              | 3290        | 567371        | 2.04 | 0.9  | 7285        | 830089        | 2.07 | 0.9  | 0.93           | 0.02                    | 0.03           |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-39

HIGH SCHOOL SHOULD HAVE PLACED MORE EMPHASIS ON VOCATIONAL AND TECHNICAL PROGRAMS  
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 14281       | 2592072       | 2.06 | 0.9  | 25480       | 2740625       | 1.98 | 0.8  | 0.86           | -0.08 *                 | -0.09          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7112        | 1296705       | 2.07 | 0.9  | 11684       | 1268196       | 1.96 | 0.9  | 0.88           | -0.11 *                 | -0.13          |
| FEMALE             | 7166        | 1294819       | 2.05 | 0.9  | 12858       | 1378556       | 2.01 | 0.8  | 0.84           | -0.04                   | -0.04          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4254        | 652942        | 1.96 | 0.9  | 7718        | 744807        | 1.80 | 0.8  | 0.83           | -0.16 *                 | -0.19          |
| MIDDLE             | 6838        | 1332242       | 2.02 | 0.9  | 11676       | 1297176       | 1.96 | 0.8  | 0.84           | -0.06 *                 | -0.07          |
| HIGH               | 3146        | 599238        | 2.25 | 0.9  | 5439        | 635735        | 2.25 | 0.9  | 0.89           | -0.00                   | -0.00          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 11016       | 2154293       | 2.07 | 0.9  | 17966       | 2137957       | 2.03 | 0.9  | 0.86           | -0.05 *                 | -0.06          |
| BLACK              | 1829        | 220766        | 2.00 | 0.9  | 3380        | 307776        | 1.78 | 0.8  | 0.86           | -0.23 *                 | -0.26          |
| ASIAN-AMERICAN     | 160         | 22700         | 1.96 | 0.8  | 340         | 37101         | 2.00 | 0.8  | 0.78           | 0.04                    | 0.05           |
| AMERICAN INDIAN    | 163         | 26889         | 1.96 | 0.9  | 198         | 20241         | 1.75 | 0.8  | 0.88           | -0.21                   | -0.24          |
| MEXICAN-AMERICAN   | 486         | 63639         | 2.01 | 0.8  | 1743        | 92905         | 1.86 | 0.8  | 0.81           | -0.15 *                 | -0.19          |
| PUERTO RICAN       | 73          | 7271          | 1.94 | 0.9  | 270         | 15842         | 1.88 | 0.9  | 0.88           | -0.06                   | -0.06          |
| OTHER HISPANIC     | 102         | 15982         | 1.93 | 0.9  | 882         | 61360         | 1.88 | 0.8  | 0.83           | -0.05                   | -0.06          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 12823       | 2306243       | 2.06 | 0.9  | 22333       | 2469113       | 1.97 | 0.8  | 0.86           | -0.09 *                 | -0.10          |
| PRIVATE            | 55          | 12760         | 2.00 | 0.9  | 736         | 90512         | 2.07 | 0.9  | 0.89           | 0.07                    | 0.08           |
| CATHOLIC           | 857         | 194573        | 2.07 | 0.9  | 2411        | 180999        | 2.05 | 0.9  | 0.90           | -0.02                   | -0.02          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 2888        | 642744        | 2.08 | 0.9  | 5011        | 611781        | 2.04 | 0.9  | 0.89           | -0.04                   | -0.04          |
| NORTH CENTRAL      | 4010        | 806350        | 2.02 | 0.9  | 7318        | 788035        | 2.01 | 0.8  | 0.85           | -0.00                   | -0.00          |
| SOUTH              | 4755        | 679101        | 2.13 | 0.9  | 8418        | 834827        | 1.94 | 0.9  | 0.87           | -0.18 *                 | -0.21          |
| WEST               | 2628        | 463877        | 2.00 | 0.9  | 4733        | 505981        | 1.92 | 0.8  | 0.81           | -0.09 *                 | -0.11          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 4976        | 851407        | 1.96 | 0.8  | 9430        | 1018126       | 1.89 | 0.8  | 0.81           | -0.07 *                 | -0.09          |
| ACADEMIC           | 5491        | 1119587       | 2.24 | 0.9  | 9242        | 997488        | 2.25 | 0.9  | 0.88           | 0.01                    | 0.01           |
| VOCATIONAL         | 3813        | 620776        | 1.87 | 0.9  | 6434        | 684724        | 1.73 | 0.8  | 0.82           | -0.13 *                 | -0.16          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3863        | 667492        | 2.09 | 0.9  | 5843        | 546286        | 1.94 | 0.8  | 0.87           | -0.15 *                 | -0.18          |
| SUBURBAN           | 6757        | 1298259       | 2.08 | 0.9  | 12236       | 1349622       | 2.02 | 0.9  | 0.87           | -0.05 *                 | -0.06          |
| RURAL              | 3310        | 568896        | 1.99 | 0.9  | 7401        | 844717        | 1.94 | 0.8  | 0.84           | -0.05                   | -0.06          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-40

HIGH SCHOOL PROVIDED ME WITH COUNSELING THAT WILL HELP ME CONTINUE MY EDUCATION  
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 14832       | 2709555       | 2.68 | 1.0  | 26194       | 2816867       | 2.78 | 1.0  | 0.99           | 0.10 *                  | 0.10           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7344        | 1346509       | 2.67 | 1.0  | 11904       | 1290375       | 2.79 | 1.0  | 0.98           | 0.12 *                  | 0.12           |
| FEMALE             | 7484        | 1362280       | 2.69 | 1.0  | 13332       | 1431068       | 2.77 | 1.0  | 1.01           | 0.08 *                  | 0.08           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4281        | 654250        | 2.80 | 0.9  | 7778        | 747023        | 2.87 | 1.0  | 0.96           | 0.07 *                  | 0.07           |
| MIDDLE             | 7003        | 1379016       | 2.68 | 1.0  | 11915       | 1323347       | 2.75 | 1.0  | 0.99           | 0.06 *                  | 0.07           |
| HIGH               | 3495        | 666931        | 2.57 | 1.0  | 5861        | 685426        | 2.76 | 1.0  | 1.02           | 0.18 *                  | 0.18           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 11389       | 2248457       | 2.65 | 1.0  | 18482       | 2199288       | 2.73 | 1.0  | 0.99           | 0.08 *                  | 0.08           |
| BLACK              | 1945        | 235376        | 2.96 | 0.9  | 3492        | 318064        | 3.04 | 1.0  | 0.98           | 0.08                    | 0.08           |
| ASIAN-AMERICAN     | 171         | 24189         | 2.79 | 0.9  | 349         | 37721         | 2.87 | 1.0  | 0.93           | 0.08                    | 0.08           |
| AMERICAN INDIAN    | 163         | 27329         | 2.70 | 1.0  | 200         | 20362         | 2.78 | 1.0  | 1.00           | 0.08                    | 0.08           |
| MEXICAN-AMERICAN   | 507         | 66576         | 2.88 | 0.9  | 1771        | 94549         | 2.88 | 1.0  | 0.97           | 0.01                    | 0.01           |
| PUERTO RICAN       | 87          | 8898          | 2.76 | 1.0  | 279         | 16145         | 2.83 | 1.0  | 1.04           | 0.07                    | 0.06           |
| OTHER HISPANIC     | 109         | 16585         | 2.80 | 0.9  | 905         | 62376         | 2.90 | 1.0  | 0.96           | 0.10                    | 0.10           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 13285       | 2401271       | 2.69 | 1.0  | 22837       | 2531042       | 2.77 | 1.0  | 0.99           | 0.09 *                  | 0.09           |
| PRIVATE            | 61          | 15111         | 2.82 | 0.9  | 806         | 95251         | 2.99 | 1.0  | 1.02           | 0.17                    | 0.16           |
| CATHOLIC           | 911         | 211000        | 2.60 | 1.0  | 2551        | 190574        | 2.84 | 1.0  | 1.01           | 0.24 *                  | 0.24           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3184        | 713869        | 2.62 | 1.0  | 5263        | 645005        | 2.75 | 1.0  | 1.02           | 0.13 *                  | 0.13           |
| NORTH CENTRAL      | 4070        | 817119        | 2.66 | 0.9  | 7516        | 807355        | 2.71 | 1.0  | 0.98           | 0.05                    | 0.05           |
| SOUTH              | 4926        | 710955        | 2.80 | 1.0  | 8594        | 849958        | 2.89 | 1.0  | 0.98           | 0.08 *                  | 0.09           |
| WEST               | 2652        | 467613        | 2.63 | 1.0  | 4821        | 514549        | 2.75 | 1.0  | 1.00           | 0.12 *                  | 0.12           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 4920        | 838805        | 2.59 | 0.9  | 9419        | 1015026       | 2.69 | 1.0  | 0.99           | 0.10 *                  | 0.10           |
| ACADEMIC           | 6287        | 1285162       | 2.73 | 1.0  | 10127       | 1095671       | 2.86 | 1.0  | 1.00           | 0.13 *                  | 0.13           |
| VOCATIONAL         | 3624        | 585285        | 2.72 | 1.0  | 6277        | 666112        | 2.79 | 1.0  | 0.97           | 0.08 *                  | 0.08           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4078        | 706524        | 2.70 | 1.0  | 6032        | 563624        | 2.79 | 1.0  | 1.01           | 0.09 *                  | 0.09           |
| SUBURBAN           | 7105        | 1377865       | 2.65 | 1.0  | 12643       | 1397549       | 2.76 | 1.0  | 1.00           | 0.11 *                  | 0.11           |
| RURAL              | 3266        | 562974        | 2.74 | 0.9  | 7519        | 855694        | 2.81 | 1.0  | 0.98           | 0.06                    | 0.07           |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-41

HIGH SCHOOL PROVIDED ME WITH COUNSELING THAT WILL HELP ME FIND EMPLOYMENT  
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 13547       | 2466444       | 2.16 | 1.0  | 24229       | 2598298       | 2.43 | 1.0  | 1.03           | 0.27 *                  | 0.26           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 6701        | 1228967       | 2.10 | 1.0  | 10889       | 1178007       | 2.43 | 1.0  | 1.01           | 0.33 *                  | 0.33           |
| FEMALE             | 6842        | 1236711       | 2.21 | 1.0  | 12418       | 1326860       | 2.40 | 1.0  | 1.04           | 0.19 *                  | 0.19           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4169        | 639252        | 2.46 | 1.0  | 7468        | 717622        | 2.64 | 1.0  | 1.02           | 0.18 *                  | 0.17           |
| MIDDLE             | 6449        | 1268634       | 2.14 | 1.0  | 11109       | 1233822       | 2.39 | 1.0  | 1.02           | 0.26 *                  | 0.25           |
| HIGH               | 2882        | 550204        | 1.84 | 0.9  | 5028        | 585892        | 2.21 | 1.0  | 0.97           | 0.37 *                  | 0.38           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 10278       | 2026572       | 2.10 | 1.0  | 16865       | 2003282       | 2.36 | 1.0  | 1.01           | 0.26 *                  | 0.26           |
| BLACK              | 1868        | 226320        | 2.56 | 1.0  | 3383        | 309714        | 2.71 | 1.1  | 1.08           | 0.15 *                  | 0.14           |
| ASIAN-AMERICAN     | 159         | 22971         | 2.01 | 0.9  | 306         | 33988         | 2.49 | 1.0  | 0.97           | 0.48 *                  | 0.50           |
| AMERICAN INDIAN    | 151         | 25247         | 2.30 | 1.1  | 193         | 19447         | 2.54 | 1.1  | 1.07           | 0.24                    | 0.22           |
| MEXICAN-AMERICAN   | 463         | 60867         | 2.42 | 0.9  | 1695        | 91709         | 2.62 | 1.0  | 1.00           | 0.19 *                  | 0.19           |
| PUERTO RICAN       | 81          | 8163          | 2.31 | 1.1  | 268         | 15643         | 2.53 | 1.0  | 1.05           | 0.22                    | 0.21           |
| OTHER HISPANIC     | 101         | 15263         | 2.36 | 1.0  | 845         | 58981         | 2.62 | 1.0  | 0.98           | 0.26                    | 0.27           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 12149       | 2192937       | 2.15 | 1.0  | 21243       | 2346032       | 2.45 | 1.0  | 1.02           | 0.30 *                  | 0.29           |
| PRIVATE            | 49          | 11383         | 1.83 | 0.8  | 675         | 82425         | 2.19 | 1.0  | 1.00           | 0.35                    | 0.35           |
| CATHOLIC           | 806         | 184845        | 2.04 | 1.0  | 2311        | 169841        | 2.20 | 1.0  | 1.00           | 0.17 *                  | 0.17           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 2834        | 628598        | 2.06 | 1.0  | 4831        | 585642        | 2.33 | 1.1  | 1.04           | 0.27 *                  | 0.26           |
| NORTH CENTRAL      | 3746        | 755770        | 2.12 | 1.0  | 6944        | 746746        | 2.38 | 1.0  | 1.00           | 0.25 *                  | 0.25           |
| SOUTH              | 4537        | 652489        | 2.35 | 1.0  | 7988        | 790473        | 2.57 | 1.0  | 1.04           | 0.23 *                  | 0.22           |
| WEST               | 2430        | 429586        | 2.06 | 1.0  | 4466        | 475438        | 2.38 | 1.0  | 1.00           | 0.32 *                  | 0.32           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 4690        | 804946        | 2.13 | 1.0  | 8923        | 961542        | 2.38 | 1.0  | 1.01           | 0.26 *                  | 0.25           |
| ACADEMIC           | 5213        | 1067245       | 1.95 | 0.9  | 8756        | 940574        | 2.26 | 1.0  | 0.98           | 0.32 *                  | 0.32           |
| VOCATIONAL         | 3643        | 593950        | 2.57 | 1.0  | 6180        | 656360        | 2.71 | 1.0  | 1.04           | 0.14 *                  | 0.14           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3727        | 644511        | 2.17 | 1.0  | 5658        | 527550        | 2.51 | 1.1  | 1.05           | 0.33 *                  | 0.32           |
| SUBURBAN           | 6382        | 1232775       | 2.09 | 1.0  | 11545       | 1273681       | 2.35 | 1.0  | 1.02           | 0.26 *                  | 0.26           |
| RURAL              | 3087        | 532065        | 2.28 | 1.0  | 7026        | 797067        | 2.49 | 1.0  | 1.01           | 0.21 *                  | 0.21           |

\*SIGNIFICANT AT .05 OR LESS

### 3. Factors Interfering with Education

The final set of questions asked students how much of each four factors had interfered with their education. Using a rating scale of 1 = A Great Deal to 3 = Not At All, they reported the following:

Table 4-42

|                                           | Mean Response |             | Difference       | Effect      |
|-------------------------------------------|---------------|-------------|------------------|-------------|
|                                           | <u>1972</u>   | <u>1980</u> | <u>1980-1972</u> | <u>Size</u> |
| Found it hard to adjust to school routine | 2.70          | 2.64        | -0.06*           | -0.10       |
| Courses were too hard                     | 2.56          | 2.48        | -0.08*           | -0.15       |
| Poor teaching                             | 2.40          | 2.29        | -0.11*           | -0.17       |
| Poor study habits                         | 2.30          | 2.12        | -0.18*           | -0.28       |

\*Significant at .05 or less

In 1972, the responses tended to fall between Somewhat and Not At All, with poor study habits causing the most interference. All four factors became more of a problem between 1972 and 1980, particularly poor study habits. High SES Blacks (-.41) and students attending Catholic schools (-0.34) showed moderate negative effect sizes for difficult courses. Academic (-0.09) and Black students (-0.07) reported the smallest increase in poor teaching as a cause of educational problems. Poor study habits interfered with students' education more in 1980 than in 1972, but particularly so for women (-0.35) and high SES Blacks (-.43) and students attending Catholic schools. (See Tables 4-43 through 4-46.)

In summary, student evaluations of school facilities and of their educational experiences generally became more negative between 1972 and 1980. The variables that showed a small negative change were the condition of school buildings and classrooms, the reputation of the school in the community, and teaching and course difficulty as factors interfering with students' education. Study habits and adequate emphasis on basic academic subjects had moderate negative effect sizes. The factors which showed improvement were adequacy of high school counseling for (1) future educational plans and (2) for future occupational plans.



TABLE 4-43

HOW MUCH HAS THE FOLLOWING INTERFERED WITH YOUR EDUCATION: FIND IT HARD TO ADJUST TO SCHOOL ROUTINE  
(1=A GREAT DEAL; 3=NOT AT ALL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16395       | 2999461       | 2.70 | 0.6  | 27429       | 2958855       | 2.64 | 0.6  | 0.58           | -0.06 *                 | -0.10          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8131        | 1493920       | 2.65 | 0.6  | 12683       | 1379363       | 2.59 | 0.6  | 0.61           | -0.06 *                 | -0.10          |
| FEMALE             | 8260        | 1504776       | 2.75 | 0.5  | 13915       | 1495280       | 2.70 | 0.6  | 0.55           | -0.05 *                 | -0.09          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4691        | 724090        | 2.69 | 0.6  | 8150        | 786518        | 2.61 | 0.6  | 0.59           | -0.08 *                 | -0.13          |
| MIDDLE             | 7810        | 1534093       | 2.71 | 0.6  | 12562       | 1397555       | 2.66 | 0.6  | 0.57           | -0.05 *                 | -0.08          |
| HIGH               | 3838        | 731438        | 2.70 | 0.6  | 6083        | 712718        | 2.67 | 0.6  | 0.58           | -0.04                   | -0.06          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12718       | 2502673       | 2.71 | 0.6  | 19545       | 2327420       | 2.65 | 0.6  | 0.57           | -0.06 *                 | -0.11          |
| BLACK              | 2020        | 244782        | 2.62 | 0.6  | 3566        | 324911        | 2.64 | 0.6  | 0.60           | 0.02                    | 0.04           |
| ASIAN-AMERICAN     | 192         | 27654         | 2.73 | 0.5  | 356         | 38404         | 2.68 | 0.5  | 0.54           | -0.05                   | -0.09          |
| AMERICAN INDIAN    | 183         | 30799         | 2.67 | 0.6  | 206         | 20962         | 2.46 | 0.7  | 0.63           | -0.22                   | -0.34          |
| MEXICAN-AMERICAN   | 535         | 70078         | 2.75 | 0.5  | 1829        | 98079         | 2.63 | 0.6  | 0.56           | -0.12 *                 | -0.21          |
| PUERTO RICAN       | 93          | 9422          | 2.67 | 0.5  | 293         | 17111         | 2.61 | 0.6  | 0.57           | -0.06                   | -0.11          |
| OTHER HISPANIC     | 117         | 17912         | 2.67 | 0.6  | 932         | 63380         | 2.57 | 0.6  | 0.62           | -0.10                   | -0.16          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14697       | 2661722       | 2.70 | 0.6  | 23929       | 2659016       | 2.64 | 0.6  | 0.58           | -0.06 *                 | -0.09          |
| PRIVATE            | 67          | 16549         | 2.74 | 0.6  | 860         | 103441        | 2.62 | 0.6  | 0.61           | -0.12                   | -0.20          |
| CATHOLIC           | 1019        | 234059        | 2.72 | 0.5  | 2640        | 196398        | 2.68 | 0.5  | 0.54           | -0.04                   | -0.08          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3565        | 796392        | 2.68 | 0.6  | 5552        | 682668        | 2.65 | 0.6  | 0.59           | -0.03                   | -0.04          |
| NORTH CENTRAL      | 4512        | 906379        | 2.69 | 0.6  | 7893        | 848459        | 2.64 | 0.6  | 0.59           | -0.05 *                 | -0.09          |
| SOUTH              | 5377        | 778053        | 2.72 | 0.6  | 8981        | 892084        | 2.66 | 0.6  | 0.56           | -0.06 *                 | -0.11          |
| WEST               | 2941        | 518637        | 2.71 | 0.6  | 5003        | 535644        | 2.61 | 0.6  | 0.59           | -0.10 *                 | -0.17          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5550        | 950522        | 2.64 | 0.6  | 9972        | 1078816       | 2.59 | 0.6  | 0.62           | -0.05 *                 | -0.09          |
| ACADEMIC           | 6749        | 1380198       | 2.75 | 0.5  | 10368       | 1122030       | 2.72 | 0.5  | 0.53           | -0.03                   | -0.05          |
| VOCATIONAL         | 4095        | 668439        | 2.68 | 0.6  | 6690        | 714627        | 2.61 | 0.6  | 0.59           | -0.07 *                 | -0.12          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4485        | 776295        | 2.71 | 0.6  | 6257        | 586688        | 2.65 | 0.6  | 0.57           | -0.06 *                 | -0.10          |
| SUBURBAN           | 7844        | 1520768       | 2.69 | 0.6  | 13239       | 1466726       | 2.63 | 0.6  | 0.59           | -0.06 *                 | -0.11          |
| RURAL              | 3638        | 633242        | 2.73 | 0.5  | 7933        | 905442        | 2.67 | 0.6  | 0.55           | -0.06 *                 | -0.12          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-44

HOW MUCH HAS THE FOLLOWING INTERFERED WITH YOUR EDUCATION: COURSES ARE TOO HARD  
(1=A GREAT DEAL; 3=NOT AT ALL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16502       | 3015571       | 2.56 | 0.5  | 27472       | 2963821       | 2.48 | 0.6  | 0.55           | -0.08 *                 | -0.15          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8184        | 1502239       | 2.54 | 0.5  | 12697       | 1380744       | 2.47 | 0.6  | 0.56           | -0.07 *                 | -0.13          |
| FEMALE             | 8314        | 1512566       | 2.57 | 0.5  | 13945       | 1498719       | 2.48 | 0.5  | 0.54           | -0.09 *                 | -0.16          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4742        | 729602        | 2.52 | 0.5  | 8172        | 789459        | 2.43 | 0.6  | 0.56           | -0.09 *                 | -0.16          |
| MIDDLE             | 7852        | 1542403       | 2.54 | 0.5  | 12582       | 1399375       | 2.48 | 0.6  | 0.55           | -0.06 *                 | -0.10          |
| HIGH               | 3849        | 733231        | 2.63 | 0.5  | 6091        | 713572        | 2.52 | 0.5  | 0.53           | -0.11 *                 | -0.20          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12775       | 2513406       | 2.57 | 0.5  | 19569       | 2330352       | 2.48 | 0.6  | 0.55           | -0.08 *                 | -0.15          |
| BLACK              | 2052        | 247842        | 2.52 | 0.6  | 3578        | 326182        | 2.48 | 0.6  | 0.56           | -0.04                   | -0.07          |
| ASIAN-AMERICAN     | 192         | 27654         | 2.55 | 0.5  | 355         | 38265         | 2.39 | 0.5  | 0.54           | -0.16                   | -0.29          |
| AMERICAN INDIAN    | 186         | 31022         | 2.47 | 0.6  | 204         | 20723         | 2.47 | 0.6  | 0.56           | -0.01                   | -0.02          |
| MEXICAN-AMERICAN   | 545         | 71578         | 2.50 | 0.5  | 1837        | 98766         | 2.39 | 0.6  | 0.56           | -0.12 *                 | -0.21          |
| PUERTO RICAN       | 94          | 9571          | 2.52 | 0.5  | 291         | 17117         | 2.41 | 0.6  | 0.60           | -0.11                   | -0.18          |
| OTHER HISPANIC     | 119         | 18392         | 2.45 | 0.6  | 938         | 63862         | 2.44 | 0.5  | 0.54           | -0.01                   | -0.02          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14791       | 2675578       | 2.55 | 0.5  | 23968       | 2663773       | 2.48 | 0.6  | 0.55           | -0.07 *                 | -0.13          |
| PRIVATE            | 67          | 16549         | 2.70 | 0.5  | 862         | 103193        | 2.51 | 0.6  | 0.55           | -0.19                   | -0.34          |
| CATHOLIC           | 1025        | 235324        | 2.59 | 0.5  | 2642        | 196854        | 2.40 | 0.6  | 0.55           | -0.19 *                 | -0.34          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3586        | 799579        | 2.53 | 0.5  | 5559        | 683774        | 2.47 | 0.6  | 0.55           | -0.07 *                 | -0.13          |
| NORTH CENTRAL      | 4530        | 909850        | 2.55 | 0.5  | 7913        | 851502        | 2.46 | 0.6  | 0.55           | -0.08 *                 | -0.15          |
| SOUTH              | 5429        | 784735        | 2.56 | 0.5  | 8995        | 892835        | 2.48 | 0.6  | 0.56           | -0.08 *                 | -0.14          |
| WEST               | 2957        | 521407        | 2.60 | 0.5  | 5005        | 535710        | 2.49 | 0.5  | 0.54           | -0.10 *                 | -0.19          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5595        | 957014        | 2.51 | 0.6  | 9997        | 1081797       | 2.43 | 0.6  | 0.56           | -0.08 *                 | -0.14          |
| ACADEMIC           | 6773        | 1384629       | 2.60 | 0.5  | 10376       | 1122726       | 2.54 | 0.5  | 0.53           | -0.06 *                 | -0.12          |
| VOCATIONAL         | 4133        | 673625        | 2.52 | 0.6  | 6698        | 715529        | 2.44 | 0.6  | 0.56           | -0.08 *                 | -0.14          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4508        | 778865        | 2.56 | 0.5  | 6267        | 587987        | 2.50 | 0.6  | 0.55           | -0.06 *                 | -0.11          |
| SUBURBAN           | 7902        | 1529991       | 2.56 | 0.5  | 13255       | 1468065       | 2.46 | 0.6  | 0.55           | -0.09 *                 | -0.17          |
| RURAL              | 3655        | 635907        | 2.56 | 0.5  | 7950        | 907768        | 2.48 | 0.6  | 0.55           | -0.08 *                 | -0.14          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-45

HOW MUCH HAS THE FOLLOWING INTERFERED WITH YOUR EDUCATION: POOR TEACHING  
(1=A GREAT DEAL; 3=NOT AT ALL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16354       | 2991370       | 2.40 | 0.7  | 27300       | 2953544       | 2.29 | 0.7  | 0.66           | -0.11 *                 | -0.17          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8103        | 1489272       | 2.39 | 0.7  | 12656       | 1375083       | 2.28 | 0.7  | 0.67           | -0.11 *                 | -0.16          |
| FEMALE             | 8247        | 1501341       | 2.40 | 0.7  | 13906       | 1495052       | 2.29 | 0.6  | 0.64           | -0.11 *                 | -0.18          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4682        | 722237        | 2.47 | 0.7  | 8118        | 784108        | 2.36 | 0.7  | 0.65           | -0.11 *                 | -0.16          |
| MIDDLE             | 7788        | 1529764       | 2.40 | 0.7  | 12549       | 1395527       | 2.27 | 0.7  | 0.66           | -0.13 *                 | -0.20          |
| HIGH               | 3826        | 729303        | 2.33 | 0.7  | 6082        | 712341        | 2.25 | 0.6  | 0.65           | -0.08 *                 | -0.12          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12694       | 2496925       | 2.40 | 0.7  | 19534       | 2326021       | 2.27 | 0.6  | 0.65           | -0.13 *                 | -0.19          |
| BLACK              | 2014        | 244339        | 2.45 | 0.7  | 3551        | 323462        | 2.40 | 0.7  | 0.66           | -0.05                   | -0.07          |
| ASIAN-AMERICAN     | 188         | 27022         | 2.32 | 0.7  | 356         | 38462         | 2.21 | 0.7  | 0.68           | -0.10                   | -0.15          |
| AMERICAN INDIAN    | 184         | 30776         | 2.35 | 0.7  | 201         | 20545         | 2.29 | 0.7  | 0.71           | -0.06                   | -0.09          |
| MEXICAN-AMERICAN   | 535         | 70230         | 2.46 | 0.7  | 1827        | 97815         | 2.38 | 0.6  | 0.63           | -0.08                   | -0.12          |
| PUERTO RICAN       | 93          | 9503          | 2.37 | 0.7  | 287         | 16483         | 2.36 | 0.7  | 0.67           | -0.00                   | -0.01          |
| OTHER HISPANIC     | 118         | 18111         | 2.43 | 0.7  | 935         | 63543         | 2.35 | 0.7  | 0.66           | -0.09                   | -0.13          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14652       | 2653569       | 2.39 | 0.7  | 23881       | 2653821       | 2.28 | 0.7  | 0.66           | -0.11 *                 | -0.17          |
| PRIVATE            | 67          | 16549         | 2.54 | 0.6  | 861         | 103222        | 2.42 | 0.6  | 0.62           | -0.12                   | -0.19          |
| CATHOLIC           | 1016        | 233260        | 2.41 | 0.7  | 2638        | 196501        | 2.33 | 0.6  | 0.65           | -0.08                   | -0.12          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3555        | 794004        | 2.38 | 0.6  | 5539        | 680914        | 2.24 | 0.6  | 0.64           | -0.14 *                 | -0.21          |
| NORTH CENTRAL      | 4498        | 903913        | 2.40 | 0.7  | 7893        | 849714        | 2.27 | 0.6  | 0.65           | -0.13 *                 | -0.20          |
| SOUTH              | 5372        | 776911        | 2.41 | 0.7  | 8960        | 889146        | 2.33 | 0.7  | 0.67           | -0.08 *                 | -0.12          |
| WEST               | 2929        | 516551        | 2.39 | 0.7  | 4988        | 533770        | 2.30 | 0.7  | 0.66           | -0.09 *                 | -0.14          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5528        | 946465        | 2.41 | 0.7  | 9964        | 1078429       | 2.26 | 0.7  | 0.67           | -0.15 *                 | -0.22          |
| ACADEMIC           | 6740        | 1378058       | 2.36 | 0.7  | 10360       | 1119637       | 2.30 | 0.6  | 0.64           | -0.06 *                 | -0.09          |
| VOCATIONAL         | 4085        | 666552        | 2.45 | 0.7  | 6661        | 712216        | 2.31 | 0.7  | 0.67           | -0.15 *                 | -0.22          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4476        | 774040        | 2.39 | 0.7  | 6236        | 584847        | 2.31 | 0.6  | 0.65           | -0.08 *                 | -0.12          |
| SUBURBAN           | 7828        | 1517219       | 2.38 | 0.7  | 13227       | 1465326       | 2.27 | 0.7  | 0.66           | -0.12 *                 | -0.18          |
| RURAL              | 3627        | 631456        | 2.44 | 0.7  | 7917        | 903370        | 2.31 | 0.7  | 0.65           | -0.14 *                 | -0.21          |

\*SIGNIFICANT AT .05 OR LESS

TABLE 4-46

HOW MUCH HAS THE FOLLOWING INTERFERED WITH YOUR EDUCATION: POOR STUDY HABITS  
(1=A GREAT DEAL; 3=NOT AT ALL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16398       | 2997534       | 2.30 | 0.7  | 27417       | 2956796       | 2.12 | 0.7  | 0.67           | -0.18 *                 | -0.28          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8121        | 1491171       | 2.19 | 0.7  | 12666       | 1376636       | 2.04 | 0.7  | 0.67           | -0.15 *                 | -0.22          |
| FEMALE             | 8273        | 1505597       | 2.42 | 0.6  | 13926       | 1496954       | 2.19 | 0.7  | 0.65           | -0.23 *                 | -0.35          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4705        | 725472        | 2.32 | 0.7  | 8139        | 784817        | 2.16 | 0.7  | 0.66           | -0.16 *                 | -0.24          |
| MIDDLE             | 7802        | 1531545       | 2.30 | 0.7  | 12563       | 1397610       | 2.11 | 0.7  | 0.67           | -0.19 *                 | -0.29          |
| HIGH               | 3835        | 730992        | 2.29 | 0.7  | 6083        | 712694        | 2.10 | 0.7  | 0.68           | -0.20 *                 | -0.29          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12710       | 2499942       | 2.30 | 0.7  | 19541       | 2327143       | 2.11 | 0.7  | 0.67           | -0.20 *                 | -0.29          |
| BLACK              | 2031        | 245402        | 2.36 | 0.6  | 3564        | 324188        | 2.20 | 0.7  | 0.66           | -0.16 *                 | -0.25          |
| ASIAN-AMERICAN     | 189         | 27119         | 2.20 | 0.7  | 355         | 38304         | 2.15 | 0.6  | 0.68           | -0.06                   | -0.08          |
| AMERICAN INDIAN    | 182         | 30683         | 2.29 | 0.6  | 204         | 20722         | 2.14 | 0.7  | 0.70           | -0.15                   | -0.21          |
| MEXICAN-AMERICAN   | 538         | 70869         | 2.29 | 0.6  | 1828        | 97694         | 2.16 | 0.6  | 0.64           | -0.13 *                 | -0.20          |
| PUERTO RICAN       | 95          | 9676          | 2.29 | 0.7  | 290         | 16647         | 2.27 | 0.7  | 0.67           | -0.02                   | -0.03          |
| OTHER HISPANIC     | 118         | 18229         | 2.33 | 0.7  | 935         | 63713         | 2.19 | 0.7  | 0.67           | -0.15                   | -0.22          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14700       | 2659887       | 2.30 | 0.7  | 23918       | 2657651       | 2.12 | 0.7  | 0.67           | -0.18 *                 | -0.27          |
| PRIVATE            | 67          | 16549         | 2.32 | 0.6  | 858         | 102554        | 2.16 | 0.7  | 0.66           | -0.16                   | -0.24          |
| CATHOLIC           | 1018        | 233636        | 2.33 | 0.7  | 2641        | 196591        | 2.10 | 0.7  | 0.67           | -0.23 *                 | -0.34          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3561        | 795129        | 2.31 | 0.7  | 5550        | 681553        | 2.14 | 0.7  | 0.67           | -0.17 *                 | -0.25          |
| NORTH CENTRAL      | 4504        | 904508        | 2.29 | 0.7  | 7895        | 849659        | 2.10 | 0.7  | 0.67           | -0.20 *                 | -0.29          |
| SOUTH              | 5397        | 780558        | 2.33 | 0.7  | 8971        | 890197        | 2.15 | 0.7  | 0.67           | -0.18 *                 | -0.27          |
| WEST               | 2936        | 517339        | 2.28 | 0.7  | 5001        | 535387        | 2.08 | 0.7  | 0.67           | -0.20 *                 | -0.29          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5554        | 950808        | 2.22 | 0.7  | 9979        | 1079444       | 2.04 | 0.7  | 0.68           | -0.18 *                 | -0.26          |
| ACADEMIC           | 6745        | 1378124       | 2.35 | 0.7  | 10362       | 1120683       | 2.17 | 0.7  | 0.66           | -0.18 *                 | -0.26          |
| VOCATIONAL         | 4098        | 668300        | 2.34 | 0.7  | 6670        | 712706        | 2.16 | 0.7  | 0.66           | -0.18 *                 | -0.27          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4485        | 774994        | 2.31 | 0.7  | 6264        | 587086        | 2.16 | 0.7  | 0.66           | -0.15 *                 | -0.23          |
| SUBURBAN           | 7847        | 1520250       | 2.29 | 0.7  | 13239       | 1466545       | 2.09 | 0.7  | 0.67           | -0.20 *                 | -0.30          |
| RURAL              | 3638        | 632990        | 2.32 | 0.7  | 7914        | 903165        | 2.13 | 0.7  | 0.67           | -0.19 *                 | -0.28          |

\*SIGNIFICANT AT .05 OR LESS

## CHAPTER V

### CHANGES IN TESTED ACHIEVEMENT AND SCHOOL GRADES

This chapter deals with changes in measured achievement of high school seniors from 1972 to 1980. The two achievement areas that will be discussed here are tested achievement and school achievement as reflected in high school grades. These two measures of achievement are particularly important since in theory they should provide corroborative evidence for either stability or change in educational outcomes over this eight-year period. If changes in test scores parallel changes in grades, both in direction and size, then one can feel relatively assured that there is at least a consistency between an objective external standard (test scores) and a more subjective internal standard (grades). Conversely, if the test scores and grades change in opposing directions, one suspects that there has been a change in school standards. This interpretation, of course, assumes that the test scores are either identical or properly equated across administrations.

The tables presented in this chapter show comparisons of 1972 and 1980 means by total population and by the standard subpopulation classification variables. Differences between the 1980 and 1972 test score means are shown in the formula-corrected number-right true score metric and by effect size. The formula-corrected number-right true scores are on the same scale as the formula-corrected raw scores and thus can be interpreted in the same way.

#### A. COMPARISONS OF 1972 AND 1980 SENIOR VOCABULARY TEST SCORES

Inspection of Table 5-1 indicates there was a decline in Vocabulary scores from 1972 to 1980 of .85 of a test score point or 22 percent of a standard deviation. The typical senior in 1980 (a student at the 50th percentile) would rank at about the 41st percentile among the 1972 seniors in Vocabulary. A closer look at the subpopulations indicates the groups that contributed disproportionately to the observed decline. Females declined more than males. Whites declined more than Blacks. The greater decline for women was of sufficient magnitude to reverse what was, in 1972, a measured superiority for females compared to males on Vocabulary to a slight inferiority in 1980. The considerably greater decline of Whites when compared to Blacks reduced the disparity between Whites and Blacks in IRT scale score units, but the two groups are still almost a standard deviation apart.

The decline is relatively consistent across SES levels with a slight increase in decline as one goes up the SES ladder. Part of this increasing decline with higher levels of SES may be due to the possibility of floor effects at the lower SES levels.

The decline is consistent across geographic areas, but there appears to be some differential rate of decline when comparisons are made by

Table 5-1

IRT VOCABULARY FORMULA SCORE  
(SCALED TO NLS VOCABULARY TEST)

-----

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 15696       | 2860438       | 6.55 | 4.0  | 24936       | 2666481       | 5.70 | 3.7  | 3.79           | -0.85 *                 | -0.22          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7804        | 1425843       | 6.44 | 4.0  | 11374       | 1218450       | 5.90 | 3.7  | 3.82           | -0.54 *                 | -0.14          |
| FEMALE             | 7887        | 1433577       | 6.67 | 4.0  | 12657       | 1355969       | 5.69 | 3.6  | 3.76           | -0.98 *                 | -0.26          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4491        | 693845        | 4.59 | 3.6  | 7369        | 707354        | 4.05 | 3.1  | 3.32           | -0.53 *                 | -0.16          |
| MIDDLE             | 7486        | 1460802       | 6.52 | 3.8  | 11474       | 1269007       | 5.77 | 3.4  | 3.57           | -0.75 *                 | -0.21          |
| HIGH               | 3663        | 695762        | 8.63 | 3.8  | 5457        | 627386        | 7.71 | 3.6  | 3.70           | -0.93 *                 | -0.25          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12174       | 2383015       | 7.08 | 3.9  | 17862       | 2110778       | 6.24 | 3.6  | 3.71           | -0.84 *                 | -0.23          |
| BLACK              | 1927        | 234726        | 3.28 | 3.0  | 3173        | 285008        | 3.20 | 2.8  | 2.90           | -0.08                   | -0.03          |
| ASIAN-AMERICAN     | 182         | 25667         | 6.72 | 4.2  | 320         | 33726         | 5.87 | 3.9  | 4.05           | -0.85                   | -0.21          |
| AMERICAN INDIAN    | 181         | 29787         | 4.04 | 3.5  | 200         | 20114         | 4.18 | 3.1  | 3.33           | 0.14                    | 0.04           |
| MEXICAN-AMERICAN   | 516         | 68274         | 3.47 | 2.9  | 1620        | 83936         | 3.50 | 3.0  | 2.95           | 0.03                    | 0.01           |
| PUERTO RICAN       | 84          | 8376          | 3.80 | 3.0  | 264         | 14218         | 3.52 | 3.0  | 3.03           | -0.28                   | -0.09          |
| OTHER HISPANIC     | 112         | 17322         | 4.64 | 3.4  | 856         | 56930         | 3.76 | 2.9  | 3.00           | -0.87                   | -0.29          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14097       | 2540625       | 6.44 | 4.0  | 21677       | 2399504       | 5.52 | 3.6  | 3.76           | -0.92 *                 | -0.24          |
| PRIVATE            | 66          | 16235         | 7.88 | 3.8  | 736         | 84461         | 7.80 | 4.0  | 4.03           | -0.08                   | -0.02          |
| CATHOLIC           | 990         | 224332        | 8.24 | 3.7  | 2523        | 182516        | 7.06 | 3.5  | 3.56           | -1.17 *                 | -0.33          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3493        | 777868        | 7.33 | 4.0  | 5013        | 609829        | 6.48 | 3.8  | 3.88           | -0.86 *                 | -0.22          |
| NORTH CENTRAL      | 4089        | 831402        | 6.58 | 3.9  | 7301        | 785432        | 5.85 | 3.5  | 3.66           | -0.74 *                 | -0.20          |
| SOUTH              | 5334        | 773440        | 5.63 | 3.9  | 8208        | 806215        | 4.84 | 3.5  | 3.68           | -0.80 *                 | -0.22          |
| WEST               | 2780        | 477727        | 6.71 | 4.0  | 4414        | 465005        | 5.94 | 3.6  | 3.79           | -0.77 *                 | -0.20          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5305        | 900620        | 5.32 | 3.6  | 9070        | 977554        | 4.83 | 3.2  | 3.35           | -0.49 *                 | -0.15          |
| ACADEMIC           | 6481        | 1322785       | 8.29 | 3.8  | 9468        | 1009104       | 7.62 | 3.7  | 3.72           | -0.67 *                 | -0.18          |
| VOCATIONAL         | 3909        | 636730        | 4.70 | 3.4  | 6042        | 642443        | 4.15 | 3.0  | 3.14           | -0.55 *                 | -0.18          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4092        | 702623        | 6.28 | 3.9  | 5524        | 513906        | 5.20 | 3.7  | 3.79           | -1.07 *                 | -0.28          |
| SUBURBAN           | 7643        | 1480061       | 7.11 | 4.0  | 11914       | 1303509       | 6.14 | 3.7  | 3.81           | -0.97 *                 | -0.26          |
| RURAL              | 3536        | 611217        | 5.75 | 3.8  | 7498        | 849066        | 5.32 | 3.5  | 3.62           | -0.42 *                 | -0.12          |

\*SIGNIFICANT AT .05 OR LESS



community type. The students living in rural areas were characterized by a somewhat smaller decline than those students classified as either urban or suburban. It may be that rural areas were more stable both in respect to population shifts and schooling practices during the 1972-1980 period.

The pervasiveness of the decline is emphasized by the fact that it is consistent across the three curriculum areas. There are declines for students from both public and Catholic schools. The magnitude of the decline is somewhat greater for students in Catholic schools. There is not sufficient data in 1972 on the private, non-Catholic schools to draw any conclusion about the stability of Vocabulary scores for students in these schools.

When sex is cross-classified with curriculum (see Tables 5-1.1 to 5-1.6 in Appendix C for the cross-classification tables), the female Vocabulary score decline is relatively consistent across the academic and vocational curricula with only a slightly lower rate of decline for the general curriculum student. When comparing Black and White declines while controlling for SES, one notes that there is a larger White decline in standard deviation units at all SES levels. The smaller decline for Blacks may be partly artifactual in the sense that the majority of Blacks are in the low SES category (especially in 1972), and there may be a test "floor effect" operating in their favor. That is, the low SES Black mean in 1972 is only 2.76 items correct, leaving little room for decline while the low SES White students had a mean of 5.52 (in 1972), indicating that they may have somewhat less of a floor effect. Only when one gets to the high SES Blacks are the scores sufficiently high to negate the possibility of a floor effect, and here the sample size is too small to draw any reliable conclusions.

When students are cross-classified by SES and school type, the sample sizes are too small to make any comparison that includes private schools. What is clear, however, is that middle SES students in both public and Catholic schools are showing declines in Vocabulary scores.

In summary, there is a decline in Vocabulary test scores between 1972 and 1980. Females tend to show greater declines than males. Whites show greater declines than Blacks, but this comparison is partially confounded with test floor effects. The decline is relatively pervasive and cuts across SES levels, geographical regions, and curriculum type. Two possible interactions were found between score decline and subpopulation classifications. There was a somewhat smaller decline for students in rural areas and for students from public schools as compared to their counterparts attending Catholic schools.

#### B. CHANGES IN READING TEST SCORES 1972-1980

Table 5-2 indicates an overall decline in Reading test scores of 1.05 test score points or 21 percent of a pooled standard deviation. Again, the typical senior in 1980 would rank at about the 41st percentile among the 1972 seniors in Reading. Although the overall decline (i.e.,

Table 5-2

IRT READING FORMULA SCORE  
(SCALED TO NLS READING TEST)

|                    | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| TOTAL              | 15713       | 2863482       | 9.89  | 5.0  | 24864       | 2658958       | 8.84  | 5.1  | 5.09           | -1.05 *                 | -0.21          |
| SEX:               |             |               |       |      |             |               |       |      |                |                         |                |
| MALE               | 7811        | 1427414       | 9.83  | 5.0  | 11352       | 1215335       | 8.95  | 5.3  | 5.16           | -0.88 *                 | -0.17          |
| FEMALE             | 7897        | 1435051       | 9.95  | 5.0  | 12614       | 1352068       | 8.96  | 5.0  | 5.00           | -0.99 *                 | -0.20          |
| SES:               |             |               |       |      |             |               |       |      |                |                         |                |
| LOW                | 4503        | 695440        | 7.65  | 5.0  | 7350        | 705500        | 6.73  | 4.7  | 4.83           | -0.92 *                 | -0.19          |
| MIDDLE             | 7489        | 1461882       | 9.92  | 4.8  | 11438       | 1264873       | 9.05  | 4.9  | 4.87           | -0.86 *                 | -0.18          |
| HIGH               | 3664        | 695829        | 12.13 | 4.5  | 5448        | 626850        | 11.20 | 4.8  | 4.71           | -0.94 *                 | -0.20          |
| RACE:              |             |               |       |      |             |               |       |      |                |                         |                |
| WHITE              | 12180       | 2384253       | 10.56 | 4.8  | 17818       | 2105217       | 9.60  | 5.0  | 4.89           | -0.96 *                 | -0.20          |
| BLACK              | 1935        | 235572        | 5.94  | 4.5  | 3157        | 283823        | 5.56  | 4.5  | 4.48           | -0.38                   | -0.09          |
| ASIAN-AMERICAN     | 182         | 25667         | 10.14 | 5.2  | 320         | 33695         | 9.11  | 5.0  | 5.12           | -1.03                   | -0.20          |
| AMERICAN INDIAN    | 181         | 29787         | 6.51  | 4.9  | 199         | 20103         | 7.11  | 4.8  | 4.86           | 0.60                    | 0.12           |
| MEXICAN-AMERICAN   | 517         | 68498         | 6.28  | 4.6  | 1620        | 83914         | 5.60  | 4.4  | 4.43           | -0.69                   | -0.15          |
| PUERTO RICAN       | 84          | 8376          | 6.11  | 4.7  | 261         | 14047         | 5.68  | 4.3  | 4.42           | -0.43                   | -0.10          |
| OTHER HISPANIC     | 112         | 17498         | 6.68  | 4.8  | 853         | 57027         | 5.73  | 4.7  | 4.70           | -0.95                   | -0.20          |
| SCHOOL TYPE:       |             |               |       |      |             |               |       |      |                |                         |                |
| PUBLIC             | 14114       | 2543636       | 9.78  | 5.0  | 21618       | 2391769       | 8.66  | 5.1  | 5.09           | -1.12 *                 | -0.22          |
| PRIVATE            | 66          | 16235         | 11.41 | 5.1  | 734         | 84636         | 11.31 | 5.2  | 5.16           | -0.09                   | -0.02          |
| CATHOLIC           | 989         | 224161        | 11.61 | 4.4  | 2512        | 182553        | 10.06 | 4.7  | 4.62           | -1.55 *                 | -0.33          |
| GEOGRAPHIC REGION: |             |               |       |      |             |               |       |      |                |                         |                |
| NORTHEAST          | 3493        | 777802        | 10.55 | 4.9  | 4974        | 605302        | 9.57  | 5.0  | 4.97           | -0.98 *                 | -0.20          |
| NORTH CENTRAL      | 4100        | 833505        | 9.97  | 4.9  | 7292        | 783970        | 9.21  | 5.0  | 4.96           | -0.76 *                 | -0.15          |
| SOUTH              | 5338        | 773939        | 9.14  | 5.2  | 8199        | 806228        | 7.83  | 5.2  | 5.20           | -1.31 *                 | -0.25          |
| WEST               | 2782        | 478236        | 9.88  | 5.1  | 4399        | 463458        | 9.01  | 5.1  | 5.07           | -0.87 *                 | -0.17          |
| CURRICULUM:        |             |               |       |      |             |               |       |      |                |                         |                |
| GENERAL            | 5310        | 901464        | 8.48  | 4.8  | 9041        | 974753        | 7.71  | 4.8  | 4.79           | -0.78 *                 | -0.16          |
| ACADEMIC           | 6486        | 1323908       | 11.99 | 4.4  | 9439        | 1006476       | 11.33 | 4.7  | 4.62           | -0.66 *                 | -0.14          |
| VOCATIONAL         | 3916        | 637808        | 7.51  | 4.7  | 6035        | 641041        | 6.81  | 4.7  | 4.67           | -0.70 *                 | -0.15          |
| COMMUNITY TYPE:    |             |               |       |      |             |               |       |      |                |                         |                |
| URBAN              | 4099        | 703504        | 9.46  | 5.0  | 5511        | 511844        | 8.21  | 5.2  | 5.10           | -1.25 *                 | -0.24          |
| SUBURBAN           | 7649        | 1481264       | 10.49 | 4.9  | 11863       | 1298837       | 9.29  | 5.1  | 5.00           | -1.20 *                 | -0.24          |
| RURAL              | 3541        | 612151        | 9.27  | 5.1  | 7490        | 848277        | 8.52  | 5.2  | 5.14           | -0.74 *                 | -0.14          |

\*SIGNIFICANT AT .05 OR LESS

for the total population) is of the same magnitude as that on the Vocabulary test in standard deviation terms, it is even more pervasive or consistent across subpopulations. The male and female declines are reasonably equivalent as are the declines by SES level, geographic areas, and curriculum types. As in the case of Vocabulary, the magnitude of the decline is somewhat smaller for students in rural areas. Blacks also show less of a decline than do the White students. Mexican-Americans show declines only slightly less than the Whites. The sample sizes are too small to draw any conclusions about the magnitudes of decline for the remaining ethnic groups.

It is interesting to note that there is a somewhat greater decline in Reading test scores for students in Catholic schools than for students in public schools. This decline was also present for Vocabulary test scores.

In summary, Reading test scores showed a decline of the same magnitude as the Vocabulary scores. The decline in Reading scores tended to be somewhat more consistent across subpopulations than the Vocabulary scores. That is, declines were consistent across SES, curriculum type, sex groups, and geographic regions. Catholic school students tended to show greater declines than public school students. Students in rural areas showed slightly less declines in tested Reading than did students from urban and suburban areas. Blacks showed smaller declines than Whites. These three interactions, which were also present in the Vocabulary test analysis, were not tested for significance.

#### C. CHANGES IN MATHEMATICS TEST SCORES 1972-1980

Although Mathematics test scores showed a significant decline (see Table 5-3) for the total population (14 percent of the pooled standard deviation), the decline was less than that found for the Vocabulary and Reading tests. A senior with average Mathematics achievement in 1980 would be at the 45th percentile when compared with the 1972 seniors. The Mathematics test score decline is consistent across sex groups, SES groups, public and Catholic school students, curriculum types, and community types. What is particularly interesting is the finding of a considerably greater decline in Mathematics scores for students in the South. As in the case of Vocabulary and Reading, White students show greater declines than do Blacks and Mexican-Americans. Once again the estimated greater decline for Whites may be somewhat exaggerated due to the greater likelihood of test score floor effects working in favor of the Blacks.

In summary, there is a small but significant decline in Mathematics scores. There is, however, a proportionately greater decline for students attending school in the South. Otherwise the declines tend to generalize across the remaining subpopulations with the exception of Blacks and Mexican-Americans where there are small but not significant increases.

Table 5-3

IRT MATHEMATICS FORMULA SCORE  
(SCALED TO NLS MATHEMATICS TEST)

|                    | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| TOTAL              | 15705       | 2862252       | 12.94 | 7.3  | 24758       | 2650446       | 11.90 | 7.2  | 7.24           | -1.03 *                 | -0.14          |
| SEX:               |             |               |       |      |             |               |       |      |                |                         |                |
| MALE               | 7807        | 1426314       | 13.79 | 7.3  | 11321       | 1213609       | 12.83 | 7.4  | 7.34           | -0.96 *                 | -0.13          |
| FEMALE             | 7893        | 1434921       | 12.09 | 7.2  | 12549       | 1346152       | 11.39 | 6.9  | 7.00           | -0.70 *                 | -0.10          |
| SES:               |             |               |       |      |             |               |       |      |                |                         |                |
| LOW                | 4493        | 694282        | 9.39  | 7.1  | 7303        | 701703        | 8.44  | 6.6  | 6.75           | -0.95 *                 | -0.14          |
| MIDDLE             | 7490        | 1461863       | 12.90 | 7.0  | 11410       | 1263636       | 12.16 | 6.8  | 6.89           | -0.74 *                 | -0.11          |
| HIGH               | 3666        | 696135        | 16.62 | 6.3  | 5428        | 624635        | 15.83 | 6.4  | 6.37           | -0.79 *                 | -0.12          |
| RACE:              |             |               |       |      |             |               |       |      |                |                         |                |
| WHITE              | 12179       | 2384219       | 13.95 | 6.9  | 17756       | 2099886       | 12.98 | 6.9  | 6.90           | -0.98 *                 | -0.14          |
| BLACK              | 1931        | 235045        | 6.50  | 6.2  | 3153        | 284281        | 6.69  | 6.3  | 6.22           | 0.19                    | 0.03           |
| ASIAN-AMERICAN     | 182         | 25667         | 15.96 | 6.7  | 317         | 33116         | 15.50 | 7.2  | 7.03           | -0.47                   | -0.07          |
| AMERICAN INDIAN    | 181         | 29787         | 7.74  | 6.4  | 198         | 20013         | 8.28  | 6.5  | 6.48           | 0.54                    | 0.08           |
| MEXICAN-AMERICAN   | 514         | 68165         | 8.02  | 6.8  | 1610        | 82650         | 7.54  | 6.8  | 6.79           | -0.48                   | -0.07          |
| PUERTO RICAN       | 84          | 8376          | 6.33  | 6.2  | 256         | 13898         | 7.19  | 7.5  | 7.24           | 0.85                    | 0.12           |
| OTHER HISPANIC     | 112         | 17461         | 8.04  | 5.9  | 839         | 55699         | 8.08  | 6.8  | 6.69           | 0.04                    | 0.01           |
| SCHOOL TYPE:       |             |               |       |      |             |               |       |      |                |                         |                |
| PUBLIC             | 14105       | 2542234       | 12.79 | 7.3  | 21503       | 2383107       | 11.59 | 7.2  | 7.25           | -1.20 *                 | -0.17          |
| PRIVATE            | 66          | 16235         | 15.50 | 6.0  | 735         | 84822         | 15.48 | 6.9  | 6.80           | -0.02                   | -0.00          |
| CATHOLIC           | 990         | 224332        | 15.36 | 6.4  | 2520        | 182516        | 14.35 | 6.2  | 6.27           | -1.02 *                 | -0.16          |
| GEOGRAPHIC REGION: |             |               |       |      |             |               |       |      |                |                         |                |
| NORTHEAST          | 3494        | 778067        | 13.90 | 7.1  | 4955        | 604620        | 13.36 | 7.2  | 7.15           | -0.53                   | -0.07          |
| NORTH CENTRAL      | 4099        | 833316        | 13.29 | 7.1  | 7277        | 783062        | 12.59 | 7.0  | 7.03           | -0.70 *                 | -0.10          |
| SOUTH              | 5332        | 773173        | 11.95 | 7.4  | 8171        | 805015        | 10.07 | 7.1  | 7.23           | -1.88 *                 | -0.26          |
| WEST               | 2780        | 477695        | 12.37 | 7.4  | 4355        | 457749        | 12.04 | 7.1  | 7.25           | -0.34                   | -0.05          |
| CURRICULUM:        |             |               |       |      |             |               |       |      |                |                         |                |
| GENERAL            | 5303        | 900844        | 10.41 | 6.8  | 8988        | 969228        | 9.89  | 6.5  | 6.62           | -0.52 *                 | -0.08          |
| ACADEMIC           | 6487        | 1323927       | 16.66 | 6.2  | 9433        | 1007295       | 16.17 | 6.2  | 6.24           | -0.49 *                 | -0.08          |
| VOCATIONAL         | 3914        | 637177        | 8.78  | 6.2  | 5990        | 637325        | 8.48  | 6.2  | 6.23           | -0.31                   | -0.05          |
| COMMUNITY TYPE:    |             |               |       |      |             |               |       |      |                |                         |                |
| URBAN              | 4097        | 703168        | 12.16 | 7.3  | 5466        | 509127        | 10.98 | 7.4  | 7.34           | -1.18 *                 | -0.16          |
| SUBURBAN           | 7648        | 1481125       | 13.81 | 7.2  | 11820       | 1295212       | 12.70 | 7.1  | 7.14           | -1.12 *                 | -0.16          |
| RURAL              | 3538        | 611858        | 12.15 | 7.3  | 7472        | 846107        | 11.24 | 7.1  | 7.14           | -0.91 *                 | -0.13          |

\*SIGNIFICANT AT .05 OR LESS

#### D. CHANGES IN GRADES 1972-1980

On the student questionnaires, the 1972 and 1980 seniors were asked to describe their high school grades. The scale ranged from 1 = Mostly below D (below 60) to 8 = Mostly A (a numerical average of 90-100). As can be seen from Table 5-4, the mean grade reported increased slightly from 5.55 in 1972 to 5.70 in 1980, or from the middle to slightly above the middle of the mostly C (70 to 74) category. Thus, while test scores have shown small to moderate declines, grades have gone up during the eight-year period. For both the total population and most subpopulations there is a small positive effect indicating an increase in self-reported grades. The increase in self-reported grades is consistent for Blacks and Whites and for all SES areas. The increase in grades is disproportionately greater for students in the academic curriculum and for students in the Northeast and North Central Regions.

As indicated earlier, an increase in grades while achievement test scores declined suggests a slippage in school standards as reflected in the school grades. The fact that both the test score declines and the grade increases were consistent across both curriculum and SES groups suggests that the slippage in standards is pervasive. These results taken in combination with the self-reports of spending less time doing homework (see Chapter VI) suggests there is not only a lowering of grading standards but a lowering of other educational demands and requirements. While no one social indicator can be interpreted in isolation from other relevant and critical indicators, when related social indicators are considered as constellations, we can make causal inferences, albeit tentatively.

If there has been a decrease in the involuntary learning (school required work), then gains in achievement must rely more heavily on voluntary learning. Unfortunately, there are many competing demands on the time for high school students today, not the least of which are extracurricular activities, TV watching, paid work, and non-school related hobbies and social activities. Some of these will be discussed in Chapter VI. The majority, however, were not covered in this cross-sectional study and must await analysis in the 1980-82 longitudinal study.

In sum, these data on grades tend to confirm the much discussed "grade inflation," but they also show that the size of this trend toward higher grades is not substantial for most groups of students.



Table 5-4

GRADES IN HIGH SCHOOL  
(1=BELOW D; 6=MOSTLY A)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16576       | 3024388       | 5.55 | 1.4  | 26013       | 3017186       | 5.70 | 1.4  | 1.43           | 0.14 *                  | 0.10           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8221        | 1506570       | 5.26 | 1.4  | 12615       | 1389400       | 5.46 | 1.4  | 1.43           | 0.20 *                  | 0.14           |
| FEMALE             | 8355        | 1516801       | 5.84 | 1.4  | 14000       | 1504276       | 5.97 | 1.4  | 1.38           | 0.13 *                  | 0.09           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4789        | 736837        | 5.24 | 1.4  | 8335        | 804180        | 5.36 | 1.4  | 1.43           | 0.12 *                  | 0.08           |
| MIDDLE             | 7884        | 1545878       | 5.50 | 1.4  | 12742       | 1417012       | 5.70 | 1.4  | 1.40           | 0.20 *                  | 0.14           |
| HIGH               | 3841        | 730988        | 5.98 | 1.4  | 6150        | 719407        | 6.14 | 1.4  | 1.39           | 0.16 *                  | 0.11           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12779       | 2513137       | 5.64 | 1.4  | 19756       | 2352390       | 5.81 | 1.4  | 1.43           | 0.17 *                  | 0.12           |
| BLACK              | 2107        | 254734        | 5.10 | 1.3  | 3730        | 339899        | 5.27 | 1.3  | 1.33           | 0.17 *                  | 0.13           |
| ASIAN-AMERICAN     | 192         | 27493         | 5.99 | 1.4  | 362         | 39134         | 6.18 | 1.3  | 1.32           | 0.19                    | 0.15           |
| AMERICAN INDIAN    | 186         | 30926         | 4.92 | 1.4  | 212         | 21795         | 5.23 | 1.4  | 1.40           | 0.31                    | 0.22           |
| MEXICAN-AMERICAN   | 551         | 72389         | 5.09 | 1.4  | 1680        | 101554        | 5.16 | 1.4  | 1.37           | 0.07                    | 0.05           |
| PUERTO RICAN       | 94          | 9541          | 5.29 | 1.5  | 302         | 17736         | 5.34 | 1.4  | 1.43           | 0.06                    | 0.04           |
| OTHER HISPANIC     | 120         | 16582         | 5.38 | 1.3  | 969         | 66541         | 5.26 | 1.4  | 1.37           | -0.12                   | -0.09          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14859       | 2683974       | 5.52 | 1.4  | 24473       | 2715178       | 5.66 | 1.5  | 1.44           | 0.13 *                  | 0.09           |
| PRIVATE            | 67          | 16549         | 5.58 | 1.3  | 865         | 103196        | 6.14 | 1.3  | 1.30           | 0.56 *                  | 0.43           |
| CATHOLIC           | 1023        | 234807        | 5.96 | 1.3  | 2675        | 198812        | 5.99 | 1.3  | 1.30           | 0.03                    | 0.02           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3581        | 796146        | 5.64 | 1.3  | 5625        | 688748        | 5.86 | 1.4  | 1.36           | 0.22 *                  | 0.16           |
| NORTH CENTRAL      | 4551        | 914144        | 5.40 | 1.4  | 8063        | 865643        | 5.59 | 1.5  | 1.47           | 0.19 *                  | 0.13           |
| SOUTH              | 5478        | 792013        | 5.64 | 1.4  | 9222        | 916771        | 5.69 | 1.5  | 1.45           | 0.05                    | 0.04           |
| WEST               | 2966        | 522085        | 5.56 | 1.4  | 5103        | 546024        | 5.67 | 1.4  | 1.42           | 0.11                    | 0.08           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5636        | 961916        | 5.09 | 1.4  | 10216       | 1104363       | 5.26 | 1.4  | 1.40           | 0.18 *                  | 0.13           |
| ACADEMIC           | 6772        | 1383415       | 6.05 | 1.3  | 10494       | 1133862       | 6.36 | 1.3  | 1.30           | 0.31 *                  | 0.24           |
| VOCATIONAL         | 4167        | 678754        | 5.20 | 1.3  | 6897        | 735252        | 5.36 | 1.4  | 1.35           | 0.16 *                  | 0.12           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4524        | 781669        | 5.48 | 1.4  | 6460        | 605593        | 5.54 | 1.4  | 1.44           | 0.06                    | 0.05           |
| SUBURBAN           | 7922        | 1532178       | 5.60 | 1.4  | 13480       | 1490958       | 5.70 | 1.4  | 1.43           | 0.10 *                  | 0.07           |
| RURAL              | 3672        | 637824        | 5.60 | 1.4  | 6073        | 920635        | 5.80 | 1.4  | 1.43           | 0.19 *                  | 0.13           |

\*SIGNIFICANT AT .05 OR LESS



## CHAPTER VI

### STUDENTS' ATTITUDES, VALUES, AND BEHAVIORS

In this chapter we describe changes in students' aspirations, attitudes, values, and behaviors. It begins with a discussion of changes in students' educational aspirations and post-high-school plans, their beliefs about their ability to complete college, and the influence which parents, teachers, guidance counselors and friends had on the post-high-school plans. Next we discuss changes in the students' occupational aspirations. This is followed by an analysis of changes in attitudes and values related to careers and to other life goals. Next we explore changes in students' self-esteem and locus of control. The final section deals with changes in behavior, specifically in time spent on homework, participation in extracurricular activities, and course-taking behavior.

#### A. EDUCATIONAL ASPIRATIONS

The seniors were asked, in 1972 and 1980, the highest level of education they planned to attain. The scale ranged from 1 = less than high school to 5 = graduate or professional school. The mean level of education planned by these students was 3.42 in 1972 and 3.45 for 1980, as shown in Table 6-1. This represents a mean level of aspiration for education midway between junior college/post-secondary vocational school and a four-year college (or some post-secondary education but not a college degree). The relative stability of educational aspirations is somewhat illusory since it represents a very small decrease in male aspirations and a small increase in female aspirations. The sex difference in educational aspirations, evident in 1972, had disappeared by 1980. There was a moderate increase in the educational aspirations of Asian-Americans (the racial/ethnic group with the highest level of educational aspirations). There was a moderate increase in the educational aspirations of students in Catholic schools and in the academic curriculum and smaller increases in the aspirations of students in the general and vocational curricula and in urban and rural schools.

Examination of the interaction of sex and curriculum showed a small statistically significant increase in educational aspirations for males in the academic curriculum. Females in all curricula show greater increases in educational aspirations than do males. There was a moderate decrease in educational aspirations for low SES Hispanics and a small increase in aspirations for high SES Whites. There were moderate increases in educational aspirations for Catholic school students at middle and high SES levels and a small increase for high SES public school students. High SES students in the Northeast, in the West, and in urban and rural communities also showed moderate increases in educational aspirations. There were small to moderate increases in the aspirations of middle and high SES students in all curricula.

Table 6-1

HIGHEST LEVEL OF EDUCATION YOU PLAN TO ATTAIN  
(1=LESS THAN HIGH SCHOOL; 5=GRADUATE/PROFESSIONAL SCHOOL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 12285       | 2307353       | 3.42 | 1.0  | 27429       | 2956578       | 3.45 | 1.0  | 1.02           | 0.04                    | 0.04           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 5963        | 1130978       | 3.54 | 1.0  | 12563       | 1362411       | 3.47 | 1.1  | 1.04           | -0.07 *                 | -0.07          |
| FEMALE             | 6319        | 1175851       | 3.30 | 1.0  | 13863       | 1489894       | 3.46 | 1.0  | 0.99           | 0.16 *                  | 0.16           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 3059        | 489999        | 2.98 | 1.0  | 8193        | 790498        | 3.01 | 1.0  | 0.97           | 0.02                    | 0.02           |
| MIDDLE             | 5897        | 1183646       | 3.32 | 0.9  | 12548       | 1395723       | 3.40 | 1.0  | 0.97           | 0.08 *                  | 0.08           |
| HIGH               | 3305        | 629448        | 3.94 | 0.8  | 6066        | 709876        | 4.10 | 0.9  | 0.86           | 0.16 *                  | 0.19           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 10144       | 2011874       | 3.43 | 1.0  | 19502       | 2322042       | 3.45 | 1.0  | 1.01           | 0.02                    | 0.02           |
| BLACK              | 1110        | 136813        | 3.46 | 1.0  | 3631        | 330771        | 3.53 | 1.0  | 1.03           | 0.07                    | 0.07           |
| ASIAN-AMERICAN     | 148         | 21012         | 3.74 | 0.9  | 354         | 38196         | 4.18 | 0.8  | 0.87           | 0.44 *                  | 0.51           |
| AMERICAN INDIAN    | 109         | 18604         | 2.90 | 1.0  | 206         | 21504         | 3.21 | 1.0  | 1.00           | 0.31                    | 0.31           |
| MEXICAN-AMERICAN   | 324         | 43038         | 3.31 | 0.9  | 1852        | 99618         | 3.23 | 1.0  | 0.99           | -0.08                   | -0.08          |
| PUERTO RICAN       | 58          | 5974          | 3.47 | 1.0  | 302         | 17761         | 3.25 | 1.1  | 1.06           | -0.22                   | -0.21          |
| OTHER HISPANIC     | 76          | 12552         | 3.28 | 1.0  | 958         | 65919         | 3.33 | 1.1  | 1.07           | 0.05                    | 0.05           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 10964       | 2035236       | 3.41 | 1.0  | 23938       | 2658694       | 3.40 | 1.0  | 1.01           | -0.00                   | -0.00          |
| PRIVATE            | 60          | 14819         | 3.82 | 0.8  | 845         | 101332        | 3.99 | 1.0  | 0.97           | 0.17                    | 0.17           |
| CATHOLIC           | 860         | 199125        | 3.55 | 1.0  | 2646        | 196552        | 3.84 | 0.9  | 0.94           | 0.29 *                  | 0.31           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 2746        | 629475        | 3.43 | 1.0  | 5512        | 675375        | 3.55 | 1.1  | 1.05           | 0.11 *                  | 0.11           |
| NORTH CENTRAL      | 3517        | 721267        | 3.35 | 1.0  | 7924        | 852563        | 3.39 | 1.0  | 1.00           | 0.04                    | 0.04           |
| SOUTH              | 3899        | 573524        | 3.45 | 1.0  | 9039        | 898681        | 3.40 | 1.0  | 1.02           | -0.05                   | -0.05          |
| WEST               | 2123        | 383087        | 3.47 | 0.9  | 4954        | 529959        | 3.53 | 1.0  | 0.97           | 0.06                    | 0.07           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 3896        | 677701        | 3.05 | 0.9  | 10003       | 1081101       | 3.16 | 1.0  | 0.95           | 0.11 *                  | 0.12           |
| ACADEMIC           | 5710        | 1179639       | 3.89 | 0.8  | 10358       | 1119640       | 4.11 | 0.9  | 0.84           | 0.22 *                  | 0.26           |
| VOCATIONAL         | 2679        | 450013        | 2.72 | 0.8  | 6685        | 714287        | 2.89 | 0.8  | 0.82           | 0.17 *                  | 0.21           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3240        | 578819        | 3.46 | 1.0  | 6290        | 590400        | 3.53 | 1.0  | 1.01           | 0.08 *                  | 0.08           |
| SUBURBAN           | 6054        | 1197451       | 3.52 | 1.0  | 13204       | 1459473       | 3.53 | 1.0  | 1.01           | 0.02                    | 0.02           |
| RURAL              | 2738        | 485943        | 3.16 | 1.0  | 7935        | 906705        | 3.27 | 1.0  | 1.00           | 0.12 *                  | 0.12           |

\*SIGNIFICANT AT .05 OR LESS

In summary, there was little change in the mean level of education planned by the average student in 1972 and in 1980. However, there were moderate increases in the educational aspirations of females, Asian-Americans, Catholic school students, and students in the academic curriculum.

Educational aspirations are a function of many different attitudes, values, and influences. These include students' beliefs about their own intellectual ability and also the influence of parents, teachers, and other key figures. In the next three sections we will examine students' plans for the first year after high school, their beliefs about their ability to do college-level work, and the extent to which parents, teachers, and friends have influenced the students' plans.

#### B. STUDENTS' PLANS FOR THE FIRST YEAR AFTER HIGH SCHOOL

There is often a gap between high school students' dreams and aspirations and the reality of their immediate plans. Consequently, the students were asked what they planned to do in the first year after they completed high school. The options included several types of post-secondary education, full- and part-time work, military service, and homemaking.

As can be seen in Table 6-2, four-year college was the most frequently mentioned plan, involving 33.6 percent of the 1972 group and 37.8 percent of the 1980 group. Full-time work ranked second in both years, being named as the post-high-school plan for 25.9 percent of the 1972 group and 29.5 percent of the 1980 group. There were increases between 1972 and 1980 both in plans for attending a four-year college (4.2 percentage points) and in plans for full-time work (3.6 percentage points). Fifty-nine percent of the 1972 group planned some form of post-secondary education (45 percent planned academic studies in a four-year college or in a junior college; 14 percent planned vocational studies in a junior college or in a voc-tech institute). Fifty-eight percent of the 1980 group planned some type of post-secondary education (46 percent planned academic studies in a four-year college or in a junior college; 12 percent planned vocational studies in a junior college or in a voc-tech institute). Students planning academic work in a junior college decreased by 2.7 percentage points between 1972 and 1980 as did students planning to attend a voc-tech institute. There was a very small increase in students planning to enter a vocational program in junior college.

Sex differences in students' plans for post-secondary education immediately after high school increased between 1972 and 1980, due primarily to the increased number of females planning to enter a four-year college. In 1972, nearly equal percentages of males and females (58.4 percent of the males and 59.5 percent of the females) planned to enter some type of post-secondary education immediately after high school. By 1980, the percentage of males with such plans had declined

Table 6-2

STUDENTS' PLANS FOR FIRST YEAR AFTER HIGH SCHOOL

|                 | College | Jr. College<br>Academic | Jr. College<br>Vocational | Voc-Tech | Work<br>Full-time | Work<br>Part-time | Apprentice | Military | Homemaker | Other |
|-----------------|---------|-------------------------|---------------------------|----------|-------------------|-------------------|------------|----------|-----------|-------|
| <u>TOTAL</u>    |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972            | 33.6    | 11.3                    | 5.4                       | 8.8      | 25.9              | 2.1               | 2.7        | 3.4      | 2.8       | 4.2   |
| 1980            | 37.8    | 8.6                     | 5.8                       | 6.1      | 29.5              | 1.9               | 2.4        | 3.5      | 1.2       | 3.2   |
| <u>SEX</u>      |         |                         |                           |          |                   |                   |            |          |           |       |
| <u>Males</u>    |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972            | 34.6    | 11.4                    | 5.2                       | 7.2      | 24.8              | 1.9               | 3.8        | 6.0      | 0.1       | 5.0   |
| 1980            | 37.2    | 7.1                     | 5.1                       | 5.4      | 31.5              | 1.5               | 3.4        | 5.4      | 0.2       | 3.1   |
| <u>Females</u>  |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972            | 32.5    | 11.2                    | 5.5                       | 10.3     | 27.0              | 2.2               | 1.5        | 0.8      | 5.5       | 3.5   |
| 1980            | 39.2    | 10.2                    | 6.4                       | 6.7      | 26.8              | 2.2               | 1.6        | 1.6      | 2.1       | 3.3   |
| <u>SES</u>      |         |                         |                           |          |                   |                   |            |          |           |       |
| <u>Low</u>      |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972            | 18.7    | 6.9                     | 5.0                       | 11.1     | 39.1              | 2.6               | 2.9        | 4.5      | 4.6       | 4.6   |
| 1980            | 21.7    | 6.2                     | 5.8                       | 8.2      | 41.6              | 2.7               | 3.2        | 5.0      | 2.2       | 3.6   |
| <u>Middle</u>   |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972            | 29.2    | 12.3                    | 6.1                       | 9.8      | 27.0              | 2.2               | 3.1        | 3.3      | 2.7       | 4.3   |
| 1980            | 34.3    | 9.7                     | 6.6                       | 6.9      | 30.4              | 1.8               | 2.6        | 3.5      | 1.0       | 3.1   |
| <u>High</u>     |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972            | 58.3    | 13.6                    | 4.2                       | 4.4      | 10.1              | 1.3               | 1.3        | 2.4      | 1.0       | 3.5   |
| 1980            | 60.9    | 9.4                     | 4.7                       | 2.9      | 14.1              | 1.1               | 1.6        | 2.1      | 0.5       | 2.8   |
| <u>RACE</u>     |         |                         |                           |          |                   |                   |            |          |           |       |
| <u>White</u>    |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972            | 34.8    | 12.0                    | 5.3                       | 8.6      | 24.6              | 2.0               | 2.7        | 3.3      | 2.8       | 3.9   |
| 1980            | 38.3    | 8.8                     | 5.7                       | 5.8      | 29.8              | 1.6               | 2.4        | 2.9      | 1.3       | 3.3   |
| <u>Black</u>    |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972            | 32.1    | 5.4                     | 4.9                       | 11.6     | 30.6              | 2.5               | 3.1        | 3.7      | 2.0       | 4.2   |
| 1980            | 39.0    | 6.1                     | 5.4                       | 7.5      | 27.4              | 3.0               | 1.8        | 6.6      | 0.6       | 2.5   |
| <u>Hispanic</u> |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972            | 23.6    | 11.6                    | 10.5                      | 7.9      | 30.3              | 2.2               | 2.8        | 5.5      | 1.7       | 3.9   |
| 1980            | 28.1    | 9.5                     | 6.9                       | 6.7      | 33.4              | 3.1               | 3.1        | 4.8      | 1.3       | 3.0   |

Table 6-2 (continued)

STUDENTS' PLANS FOR FIRST YEAR AFTER HIGH SCHOOL

|                      | College | Jr. College<br>Academic | Jr. College<br>Vocational | Voc-Tech | Work<br>Full-time | Work<br>Part-time | Apprentice | Military | Homemaker | Other |
|----------------------|---------|-------------------------|---------------------------|----------|-------------------|-------------------|------------|----------|-----------|-------|
| <u>SCHOOL TYPE</u>   |         |                         |                           |          |                   |                   |            |          |           |       |
| <u>Public</u>        |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972                 | 32.6    | 11.5                    | 5.3                       | 8.8      | 26.1              | 2.2               | 2.8        | 3.5      | 2.9       | 4.4   |
| 1980                 | 35.3    | 8.8                     | 6.0                       | 6.3      | 31.0              | 1.9               | 2.5        | 3.7      | 1.3       | 3.2   |
| <u>Private</u>       |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972                 | 50.2    | 10.9                    | 11.0                      | 10.8     | 10.2              | 3.2               | 0.0        | 0.0      | 2.5       | 1.2   |
| 1980                 | 61.6    | 5.0                     | 4.4                       | 4.2      | 13.4              | 2.0               | 0.8        | 1.7      | 0.8       | 6.1   |
| <u>Catholic</u>      |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972                 | 46.7    | 9.2                     | 5.2                       | 9.4      | 21.7              | 1.1               | 1.6        | 1.5      | 1.5       | 2.2   |
| 1980                 | 58.5    | 8.4                     | 4.1                       | 4.7      | 17.7              | 1.4               | 2.0        | 1.1      | 0.5       | 1.7   |
| <u>CURRICULUM</u>    |         |                         |                           |          |                   |                   |            |          |           |       |
| <u>Academic</u>      |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972                 | 57.7    | 14.9                    | 4.8                       | 5.2      | 9.6               | 1.1               | 1.2        | 2.3      | 0.9       | 2.1   |
| 1980                 | 66.7    | 9.8                     | 4.1                       | 2.8      | 10.2              | 1.1               | 1.1        | 2.0      | 0.3       | 1.8   |
| <u>General</u>       |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972                 | 17.6    | 10.9                    | 5.8                       | 9.7      | 33.5              | 3.0               | 3.9        | 4.5      | 4.3       | 6.8   |
| 1980                 | 25.0    | 9.0                     | 6.2                       | 6.8      | 37.5              | 2.3               | 2.6        | 4.5      | 1.8       | 4.5   |
| <u>Vocational</u>    |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972                 | 7.1     | 4.4                     | 5.9                       | 14.7     | 48.2              | 2.7               | 3.8        | 3.9      | 4.4       | 5.0   |
| 1980                 | 12.5    | 6.3                     | 7.7                       | 10.2     | 47.5              | 2.4               | 4.1        | 4.3      | 1.5       | 3.5   |
| <u>REGION</u>        |         |                         |                           |          |                   |                   |            |          |           |       |
| <u>Northeast</u>     |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972                 | 37.1    | 11.7                    | 4.7                       | 7.8      | 26.0              | 1.6               | 2.6        | 2.9      | 1.7       | 3.8   |
| 1980                 | 44.7    | 7.0                     | 4.4                       | 5.5      | 25.9              | 1.9               | 2.5        | 4.2      | 0.8       | 3.2   |
| <u>North Central</u> |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972                 | 33.5    | 7.8                     | 5.0                       | 10.3     | 27.5              | 2.2               | 3.0        | 3.4      | 3.1       | 4.3   |
| 1980                 | 37.4    | 6.8                     | 5.5                       | 7.2      | 31.7              | 1.8               | 2.6        | 2.6      | 1.2       | 3.1   |
| <u>South</u>         |         |                         |                           |          |                   |                   |            |          |           |       |
| 1972                 | 34.0    | 10.2                    | 4.2                       | 9.9      | 27.0              | 1.9               | 2.5        | 3.6      | 3.0       | 3.5   |
| 1980                 | 35.8    | 8.2                     | 5.5                       | 6.1      | 32.0              | 1.7               | 2.2        | 4.0      | 1.4       | 2.9   |

Table 6-2 (continued)

STUDENTS' PLANS FOR FIRST YEAR AFTER HIGH SCHOOL

|                       | <u>College</u> | <u>Jr. College<br/>Academic</u> | <u>Jr. College<br/>Vocational</u> | <u>Voc-Tech</u> | <u>Work<br/>Full-Time</u> | <u>Work<br/>Part-Time</u> | <u>Apprentice</u> | <u>Military</u> | <u>Homemaker</u> | <u>Other</u> |
|-----------------------|----------------|---------------------------------|-----------------------------------|-----------------|---------------------------|---------------------------|-------------------|-----------------|------------------|--------------|
| <u>REGION (cont.)</u> |                |                                 |                                   |                 |                           |                           |                   |                 |                  |              |
| <u>West</u>           |                |                                 |                                   |                 |                           |                           |                   |                 |                  |              |
| 1972                  | 27.4           | 18.2                            | 8.9                               | 6.0             | 21.3                      | 2.7                       | 2.4               | 3.8             | 3.4              | 5.9          |
| 1980                  | 33.1           | 14.1                            | 8.6                               | 5.3             | 25.9                      | 2.2                       | 2.5               | 3.1             | 1.3              | 3.9          |
| <u>COMMUNITY</u>      |                |                                 |                                   |                 |                           |                           |                   |                 |                  |              |
| <u>Urban</u>          |                |                                 |                                   |                 |                           |                           |                   |                 |                  |              |
| 1972                  | 35.5           | 11.5                            | 5.0                               | 7.7             | 26.7                      | 1.6                       | 2.7               | 2.8             | 2.4              | 4.0          |
| 1980                  | 40.2           | 7.6                             | 5.9                               | 6.0             | 27.4                      | 2.4                       | 2.8               | 3.6             | 0.9              | 3.2          |
| <u>Suburb</u>         |                |                                 |                                   |                 |                           |                           |                   |                 |                  |              |
| 1972                  | 37.3           | 12.6                            | 5.6                               | 7.8             | 22.7                      | 2.1                       | 2.4               | 3.5             | 2.4              | 3.9          |
| 1980                  | 40.3           | 9.5                             | 6.0                               | 5.4             | 27.7                      | 1.6                       | 2.6               | 2.8             | 1.0              | 3.2          |
| <u>Rural</u>          |                |                                 |                                   |                 |                           |                           |                   |                 |                  |              |
| 1972                  | 24.1           | 7.8                             | 5.3                               | 12.6            | 31.6                      | 2.5                       | 3.4               | 4.1             | 4.1              | 4.4          |
| 1980                  | 32.3           | 7.8                             | 5.4                               | 7.3             | 33.7                      | 2.0                       | 2.0               | 4.5             | 1.8              | 3.1          |



to 54.8 percent while the percentage of females increased to 62.5 percent. The percentage of students planning to enter an academic program (either in a four-year college or a junior college) showed a similar trend. In 1972, 46.0 percent of the males planned to enter this type of post-secondary education, but by 1980 the percentage had declined to 44.3 percent. For females, however, the percentage planning immediate post-high-school entrance into academic post-secondary education rose from 44.3 percent in 1972 to 49.4 percent in 1980. The percentage of students planning to enter vocational post-secondary education in a junior college or a voc-tech institute immediately after high school declined between 1972 and 1980 for both males and females.

There was an increase of 3.5 percentage points between 1972 and 1980 in students planning to begin full-time work immediately after high school. This increase was due to a sharp rise in the percentage of males with such plans (24.8 percent in 1972 and 31.5 percent in 1980). The percentage of females with immediate plans for full-time work decreased very slightly between 1972 and 1980.

Increases in the percentage of students planning to enter a four-year college or to enter a vocational program in a junior college occurred across all SES levels. Declines in the percentage of students planning to enter an academic program in a junior college or to enter a voc-tech institute are also found across all SES levels. Increases in the percentage of students planning to enter a four-year college also occurred in all racial/ethnic groups. Blacks also showed increases in the percentage of students planning to enter a junior college, but there is a decline in the percentage of Hispanics planning this type of post-secondary education.

There was also an increase, at all SES levels, in the percentage of students planning to work full-time immediately after high school. This increase was also evident for White and Hispanic students; there was a decrease, however, between 1972 and 1980, in Black students planning to enter full-time employment immediately after high school.

It is not surprising that four-year college was the most frequently mentioned post-high-school plan in both 1972 and 1980 for students in the academic curriculum. Plans for this type of post-secondary education increased by 9 percentage points among academic students between 1972 and 1980. However, plans for all other types of post-secondary education showed a decrease among academic students. This netted a very small increase (from 82.6 percent to 83.4 percent) in the percentage of academic curriculum students planning to enter any type of post-secondary education immediately after high school.

Full-time work was the most frequently mentioned post-high-school plan in 1972 and in 1980 for students in the general and the vocational curricula. Plans for work increased among general curriculum students but decreased among vocational students. However, plans for some type

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of post-secondary education increased among both general and vocational students. In 1972, 44.0 percent of the general and 32.1 percent of the vocational students had immediate plans for post-secondary education; by 1980 this had increased to 47.0 percent and 36.7 percent. Perhaps most surprising is the fact that there was a decrease, from 20.6 percent in 1972 to 17.9 percent in 1980, in the percentage of vocational curriculum students planning to enter post-secondary vocational education in a junior college or in a voc-tech institute.

This picture of changes in immediate post-high-school plans is fairly consistent with the educational aspirations changes discussed earlier. The increase in females' educational aspirations is matched by their increased plans for participation in post-secondary education. Although there was an increase between 1972 and 1980 in the percentage of students planning to enter four-year colleges, declines in plans for most other forms of post-secondary education resulted in a very small net loss (0.8 percentage points) for post-secondary education participation immediately after high school. The shift to four-year colleges from other types of post-secondary education may be due to changes in the competitiveness of entrance into four-year colleges between 1972 and 1980.

#### C. ABILITY TO COMPLETE COLLEGE

The students were asked, regardless of their educational plans, if they thought that they had the ability to complete college. The scale ranged from 1 = definitely not to 5 = yes, definitely. As shown in Table 6-3, the mean in 1972 was 4.05; in 1980 it was 4.20. This indicates that the average high school students in these groups believed that they had the intellectual ability to complete college. The increase from 1972 to 1980 is significant but has only a small effect size. This increase appears inconsistent with the declining proportion of students in the academic curriculum and with the falling test scores. It is, however, consistent with the rise in high school grades.

The increase in students' belief that they have the ability to complete college was fairly consistent across sex, SES groups, and curricula. White and Black students showed small increases, and there was a large increase among Asian-Americans. Catholic school students showed a moderate increase, while students in public schools showed a small increase. Students from rural communities showed a moderate increase, while the students in urban and suburban communities showed small increases.

#### D. INFLUENCES OF OTHERS ON PLANS FOR AFTER HIGH SCHOOL

The students were asked to indicate the extent to which four groups of significant others influenced the students' post-high-school plans (whether for further education, paid work, or another activity). The scale ranges from 1 = no influence at all to 3 = a great deal. As can be

Table 6-3

DO YOU THINK YOU HAVE THE ABILITY TO COMPLETE COLLEGE  
(1=DEFINITELY NOT; 5=YES, DEFINITELY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16433       | 3002090       | 4.05 | 1.0  | 27165       | 2930326       | 4.20 | 1.0  | 0.99           | 0.15 *                  | 0.15           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8142        | 1494648       | 4.06 | 1.0  | 12750       | 1383934       | 4.20 | 1.0  | 1.00           | 0.14 *                  | 0.14           |
| FEMALE             | 8286        | 1506424       | 4.05 | 1.0  | 13962       | 1499831       | 4.21 | 0.9  | 0.97           | 0.16 *                  | 0.17           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4724        | 727019        | 3.71 | 1.1  | 8059        | 776373        | 3.87 | 1.1  | 1.10           | 0.15 *                  | 0.14           |
| MIDDLE             | 7813        | 1533525       | 4.03 | 1.0  | 12459       | 1386673       | 4.20 | 0.9  | 0.96           | 0.17 *                  | 0.18           |
| HIGH               | 3844        | 732597        | 4.45 | 0.8  | 6066        | 711332        | 4.59 | 0.7  | 0.73           | 0.15 *                  | 0.20           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12696       | 2499082       | 4.08 | 1.0  | 19457       | 2316310       | 4.21 | 1.0  | 0.98           | 0.13 *                  | 0.13           |
| BLACK              | 2069        | 249702        | 4.04 | 1.0  | 3487        | 317414        | 4.23 | 1.0  | 0.96           | 0.18 *                  | 0.19           |
| ASIAN-AMERICAN     | 192         | 27654         | 4.02 | 1.0  | 356         | 38640         | 4.52 | 0.7  | 0.80           | 0.50 *                  | 0.62           |
| AMERICAN INDIAN    | 182         | 30102         | 3.57 | 1.1  | 204         | 20893         | 3.95 | 1.1  | 1.14           | 0.38                    | 0.34           |
| MEXICAN-AMERICAN   | 548         | 71714         | 3.91 | 1.0  | 1818        | 97356         | 3.93 | 1.0  | 0.99           | 0.02                    | 0.02           |
| PUERTO RICAN       | 95          | 9691          | 3.79 | 1.1  | 297         | 17292         | 4.07 | 1.1  | 1.11           | 0.28                    | 0.25           |
| OTHER HISPANIC     | 120         | 18550         | 3.95 | 1.1  | 928         | 62469         | 4.04 | 1.0  | 1.01           | 0.09                    | 0.09           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14736       | 2665150       | 4.04 | 1.0  | 23681       | 2631565       | 4.17 | 1.0  | 1.00           | 0.13 *                  | 0.13           |
| PRIVATE            | 67          | 16549         | 4.35 | 0.8  | 861         | 103288        | 4.49 | 0.8  | 0.81           | 0.15                    | 0.18           |
| CATHOLIC           | 1013        | 232771        | 4.19 | 1.0  | 2623        | 195472        | 4.42 | 0.8  | 0.85           | 0.23 *                  | 0.27           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3539        | 789613        | 4.08 | 1.0  | 5530        | 678565        | 4.27 | 0.9  | 0.97           | 0.19 *                  | 0.19           |
| NORTH CENTRAL      | 4510        | 906230        | 3.98 | 1.1  | 7786        | 839332        | 4.14 | 1.0  | 1.03           | 0.16 *                  | 0.16           |
| SOUTH              | 5432        | 785323        | 4.05 | 1.0  | 8882        | 879003        | 4.16 | 1.0  | 1.00           | 0.11 *                  | 0.11           |
| WEST               | 2952        | 520925        | 4.13 | 1.0  | 4967        | 533425        | 4.26 | 0.9  | 0.92           | 0.13 *                  | 0.15           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5569        | 951276        | 3.76 | 1.1  | 9863        | 1067170       | 3.99 | 1.0  | 1.05           | 0.23 *                  | 0.22           |
| ACADEMIC           | 6776        | 1385199       | 4.46 | 0.7  | 10338       | 1118542       | 4.61 | 0.6  | 0.69           | 0.15 *                  | 0.22           |
| VOCATIONAL         | 4087        | 665312        | 3.63 | 1.1  | 6579        | 703008        | 3.89 | 1.1  | 1.08           | 0.26 *                  | 0.24           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4495        | 777661        | 4.08 | 1.0  | 6207        | 582480        | 4.22 | 1.0  | 0.97           | 0.13 *                  | 0.14           |
| SUBURBAN           | 7877        | 1523846       | 4.13 | 1.0  | 13108       | 1450840       | 4.25 | 0.9  | 0.95           | 0.12 *                  | 0.12           |
| RURAL              | 3644        | 633262        | 3.87 | 1.1  | 7850        | 897006        | 4.11 | 1.0  | 1.04           | 0.23 *                  | 0.22           |

\*SIGNIFICANT AT .05 OR LESS

seen in summary Table 6-4, parents had the greatest influence on students' post-high-school plans in both 1972 and in 1980. In 1972, teachers were the group which had the least influence. By 1980, however, teachers' influence had increased, and guidance counselors were the group with the least influence. Three of the four groups of significant others, teachers, parents and guidance counselors, showed an increase in influence on students' post-high-school plans between 1972 and 1980. The influence of friends and relatives, however, decreased.

Table 6-4

Influence of Significant Others on Students' Post-High-School Plans

| <u>Influences</u>     | <u>1972<br/>Mean</u> | <u>1980<br/>Mean</u> | <u>Differ-<br/>ence</u> | <u>Effect Size</u> |
|-----------------------|----------------------|----------------------|-------------------------|--------------------|
| Parents               | 2.33                 | 2.42                 | 0.09*                   | 0.15               |
| Friends and Relatives | 2.15                 | 2.02                 | -0.14*                  | -0.20              |
| Guidance Counselor    | 1.55                 | 1.61                 | 0.06*                   | 0.08               |
| Teachers              | 1.49                 | 1.73                 | 0.23*                   | 0.34               |

\*Significant at .05 or less

Parents' influence on students' post-high-school plans showed a small increase from 1972 to 1980. (See Table 6-5.) This increase was larger for high and middle SES students than for low SES students. Students in Catholic schools showed a greater increase than public school students. Students from the West showed a greater increase than students from other regions.

Teachers' influence on students' post-high-school plans showed a moderate increase from 1972 to 1980. There was little variation in this increase across sex, racial/ethnic, SES, curriculum, geographic region, school type, or community type. (See Table 6-6.) Cross-tabulations of teacher influence show somewhat larger increases for middle SES Hispanics and for high SES Blacks. High SES students in the academic and vocational curricula consistently showed slightly larger increases in teacher influence.

Although guidance counselors' influence on students post-high-school plans increased very slightly between 1972 and 1980, it reached a small but significant effect size with students in Catholic schools. (See Table 6-7.) Cross-tabulations show small increases for influence of the counselor for students in Catholic schools regardless of SES.

Friends and relatives were the only group of significant others to show any decline in their influence on students post-high-school plans between 1972 and 1980. This decrease is 20 percent of a standard deviation. The decrease was greater for low SES than high SES students. (See Table 6-8.) It was also somewhat greater for Black and other Hispanic

Table 6-5

INFLUENCE OF PARENTS ON PLANS FOR AFTER HIGH SCHOOL  
(1=NOT AT ALL; 3=A GREAT DEAL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16599       | 3030694       | 2.33 | 0.6  | 27547       | 2971982       | 2.42 | 0.6  | 0.64           | 0.09 *                  | 0.15           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8232        | 1509407       | 2.31 | 0.7  | 12690       | 1379228       | 2.41 | 0.6  | 0.65           | 0.10 *                  | 0.16           |
| FEMALE             | 8362        | 1520270       | 2.35 | 0.6  | 13957       | 1500182       | 2.44 | 0.6  | 0.64           | 0.09 *                  | 0.14           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4784        | 735239        | 2.30 | 0.7  | 8177        | 790295        | 2.35 | 0.7  | 0.68           | 0.06 *                  | 0.08           |
| MIDDLE             | 7894        | 1549370       | 2.30 | 0.6  | 12616       | 1402909       | 2.40 | 0.6  | 0.64           | 0.10 *                  | 0.16           |
| HIGH               | 3857        | 734919        | 2.42 | 0.6  | 6097        | 714494        | 2.55 | 0.6  | 0.59           | 0.13 *                  | 0.22           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12810       | 2520080       | 2.31 | 0.6  | 19581       | 2332409       | 2.40 | 0.6  | 0.64           | 0.09 *                  | 0.14           |
| BLACK              | 2098        | 253552        | 2.53 | 0.6  | 3610        | 329657        | 2.57 | 0.6  | 0.63           | 0.04                    | 0.07           |
| ASIAN-AMERICAN     | 191         | 27609         | 2.43 | 0.7  | 356         | 38717         | 2.49 | 0.6  | 0.64           | 0.06                    | 0.09           |
| AMERICAN INDIAN    | 186         | 31059         | 2.29 | 0.7  | 205         | 21102         | 2.52 | 0.6  | 0.64           | 0.23 *                  | 0.35           |
| MEXICAN-AMERICAN   | 552         | 72480         | 2.40 | 0.7  | 1830        | 97985         | 2.50 | 0.6  | 0.65           | 0.09                    | 0.15           |
| PUERTO RICAN       | 96          | 9764          | 2.33 | 0.7  | 295         | 17046         | 2.36 | 0.7  | 0.70           | 0.04                    | 0.05           |
| OTHER HISPANIC     | 122         | 18844         | 2.43 | 0.6  | 949         | 64763         | 2.46 | 0.6  | 0.64           | 0.03                    | 0.05           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14878       | 2689030       | 2.33 | 0.6  | 24028       | 2671355       | 2.42 | 0.6  | 0.65           | 0.09 *                  | 0.14           |
| PRIVATE            | 67          | 16549         | 2.35 | 0.6  | 861         | 103070        | 2.48 | 0.6  | 0.61           | 0.13                    | 0.21           |
| CATHOLIC           | 1026        | 235732        | 2.32 | 0.6  | 2658        | 197557        | 2.47 | 0.6  | 0.61           | 0.15 *                  | 0.25           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3599        | 801829        | 2.32 | 0.7  | 5569        | 684337        | 2.39 | 0.6  | 0.65           | 0.08 *                  | 0.12           |
| NORTH CENTRAL      | 4552        | 913877        | 2.31 | 0.6  | 7925        | 853383        | 2.38 | 0.6  | 0.64           | 0.07 *                  | 0.11           |
| SOUTH              | 5476        | 791492        | 2.40 | 0.6  | 9042        | 898078        | 2.49 | 0.6  | 0.64           | 0.10 *                  | 0.15           |
| WEST               | 2972        | 523495        | 2.28 | 0.7  | 5011        | 536184        | 2.42 | 0.6  | 0.65           | 0.14 *                  | 0.22           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5639        | 963148        | 2.26 | 0.7  | 10019       | 1084871       | 2.37 | 0.7  | 0.66           | 0.11 *                  | 0.17           |
| ACADEMIC           | 6797        | 1389247       | 2.40 | 0.6  | 10410       | 1125843       | 2.51 | 0.6  | 0.61           | 0.11 *                  | 0.18           |
| VOCATIONAL         | 4162        | 677997        | 2.28 | 0.7  | 6719        | 717871        | 2.37 | 0.7  | 0.66           | 0.09 *                  | 0.13           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4538        | 783616        | 2.34 | 0.6  | 6302        | 591323        | 2.46 | 0.6  | 0.64           | 0.12 *                  | 0.19           |
| SUBURBAN           | 7935        | 1536531       | 2.33 | 0.6  | 13286       | 1471342       | 2.42 | 0.6  | 0.64           | 0.09 *                  | 0.14           |
| RURAL              | 3670        | 637501        | 2.31 | 0.6  | 7959        | 909317        | 2.41 | 0.6  | 0.65           | 0.09 *                  | 0.14           |

\*SIGNIFICANT AT .05 OR LESS



Table 6-6

INFLUENCE OF TEACHERS ON PLANS FOR AFTER HIGH SCHOOL  
(1=NOT AT ALL; 3=A GREAT DEAL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16444       | 3005323       | 1.49 | 0.7  | 26910       | 2907565       | 1.73 | 0.7  | 0.69           | 0.23 *                  | 0.34           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8150        | 1495673       | 1.47 | 0.7  | 12389       | 1349949       | 1.69 | 0.7  | 0.68           | 0.23 *                  | 0.33           |
| FEMALE             | 8289        | 1508634       | 1.52 | 0.7  | 13665       | 1469508       | 1.75 | 0.7  | 0.70           | 0.24 *                  | 0.34           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4704        | 724912        | 1.54 | 0.7  | 7935        | 767333        | 1.77 | 0.7  | 0.71           | 0.23 *                  | 0.33           |
| MIDDLE             | 7838        | 1538073       | 1.49 | 0.7  | 12375       | 1378183       | 1.71 | 0.7  | 0.69           | 0.22 *                  | 0.32           |
| HIGH               | 3844        | 732170        | 1.46 | 0.7  | 5993        | 701701        | 1.72 | 0.7  | 0.67           | 0.25 *                  | 0.38           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12740       | 2505498       | 1.46 | 0.7  | 19258       | 2293844       | 1.68 | 0.7  | 0.67           | 0.22 *                  | 0.32           |
| BLACK              | 2041        | 246892        | 1.75 | 0.7  | 3451        | 314543        | 1.96 | 0.7  | 0.74           | 0.21 *                  | 0.29           |
| ASIAN-AMERICAN     | 191         | 27609         | 1.59 | 0.7  | 349         | 38009         | 1.78 | 0.7  | 0.71           | 0.19                    | 0.27           |
| AMERICAN INDIAN    | 182         | 30600         | 1.41 | 0.6  | 201         | 20727         | 1.85 | 0.7  | 0.64           | 0.45 *                  | 0.69           |
| MEXICAN-AMERICAN   | 542         | 71046         | 1.58 | 0.7  | 1760        | 93796         | 1.84 | 0.7  | 0.73           | 0.26 *                  | 0.36           |
| PUERTO RICAN       | 93          | 9415          | 1.68 | 0.7  | 282         | 16597         | 1.92 | 0.7  | 0.70           | 0.24                    | 0.34           |
| OTHER HISPANIC     | 118         | 18323         | 1.47 | 0.6  | 913         | 62255         | 1.78 | 0.7  | 0.72           | 0.31 *                  | 0.44           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14739       | 2666327       | 1.49 | 0.7  | 23446       | 2612212       | 1.73 | 0.7  | 0.69           | 0.24 *                  | 0.34           |
| PRIVATE            | 67          | 16549         | 1.53 | 0.7  | 842         | 100132        | 1.79 | 0.7  | 0.70           | 0.26                    | 0.36           |
| CATHOLIC           | 1022        | 234852        | 1.43 | 0.6  | 2622        | 195221        | 1.63 | 0.6  | 0.64           | 0.20 *                  | 0.31           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3561        | 794710        | 1.45 | 0.7  | 5455        | 671104        | 1.70 | 0.7  | 0.68           | 0.25 *                  | 0.37           |
| NORTH CENTRAL      | 4518        | 907612        | 1.48 | 0.7  | 7796        | 840568        | 1.68 | 0.7  | 0.68           | 0.20 *                  | 0.29           |
| SOUTH              | 5414        | 783096        | 1.55 | 0.7  | 8781        | 873505        | 1.79 | 0.7  | 0.71           | 0.24 *                  | 0.34           |
| WEST               | 2951        | 519906        | 1.48 | 0.7  | 4878        | 522398        | 1.72 | 0.7  | 0.69           | 0.24 *                  | 0.35           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5575        | 953828        | 1.40 | 0.6  | 9764        | 1056616       | 1.61 | 0.7  | 0.66           | 0.20 *                  | 0.31           |
| ACADEMIC           | 6759        | 1381081       | 1.54 | 0.7  | 10260       | 1110539       | 1.81 | 0.7  | 0.70           | 0.27 *                  | 0.39           |
| VOCATIONAL         | 4109        | 670112        | 1.53 | 0.7  | 6512        | 699108        | 1.78 | 0.7  | 0.71           | 0.25 *                  | 0.35           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4488        | 776133        | 1.52 | 0.7  | 6106        | 574267        | 1.80 | 0.7  | 0.71           | 0.27 *                  | 0.38           |
| SUBURBAN           | 7876        | 1526107       | 1.47 | 0.7  | 12987       | 1439263       | 1.70 | 0.7  | 0.68           | 0.22 *                  | 0.33           |
| RURAL              | 3639        | 632408        | 1.51 | 0.7  | 7817        | 894035        | 1.73 | 0.7  | 0.69           | 0.22 *                  | 0.32           |

\*SIGNIFICANT AT .05 OR LESS



Table 6-7

INFLUENCE OF GUIDANCE COUNSELOR ON PLANS FOR AFTER HIGH SCHOOL  
(1=NOT AT ALL; 3=A GREAT DEAL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16456       | 3008556       | 1.55 | 0.6  | 26859       | 2901445       | 1.61 | 0.7  | 0.67           | 0.06 *                  | 0.08           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8156        | 1497530       | 1.55 | 0.6  | 12357       | 1345819       | 1.59 | 0.7  | 0.66           | 0.04 *                  | 0.07           |
| FEMALE             | 8295        | 1510009       | 1.55 | 0.6  | 13648       | 1467970       | 1.62 | 0.7  | 0.67           | 0.06 *                  | 0.09           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4706        | 725227        | 1.63 | 0.7  | 7912        | 764420        | 1.68 | 0.7  | 0.70           | 0.05 *                  | 0.08           |
| MIDDLE             | 7844        | 1539785       | 1.54 | 0.6  | 12356       | 1374926       | 1.59 | 0.7  | 0.66           | 0.05 *                  | 0.08           |
| HIGH               | 3846        | 732895        | 1.50 | 0.6  | 5988        | 702410        | 1.55 | 0.6  | 0.63           | 0.05 *                  | 0.08           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12750       | 2508227       | 1.51 | 0.6  | 19234       | 2291585       | 1.55 | 0.6  | 0.64           | 0.04 *                  | 0.06           |
| BLACK              | 2040        | 246853        | 1.80 | 0.7  | 3438        | 312504        | 1.91 | 0.7  | 0.74           | 0.02                    | 0.03           |
| ASIAN-AMERICAN     | 191         | 27584         | 1.62 | 0.6  | 349         | 38274         | 1.66 | 0.7  | 0.69           | 0.03                    | 0.05           |
| AMERICAN INDIAN    | 184         | 30745         | 1.62 | 0.7  | 198         | 20530         | 1.72 | 0.7  | 0.70           | 0.09                    | 0.13           |
| MEXICAN-AMERICAN   | 543         | 71182         | 1.73 | 0.7  | 1750        | 93024         | 1.78 | 0.7  | 0.72           | 0.05                    | 0.07           |
| PUERTO RICAN       | 93          | 9473          | 1.66 | 0.7  | 285         | 16695         | 1.71 | 0.7  | 0.72           | 0.05                    | 0.08           |
| OTHER HISPANIC     | 118         | 18323         | 1.60 | 0.7  | 905         | 61051         | 1.67 | 0.7  | 0.69           | 0.06                    | 0.09           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14746       | 2668764       | 1.56 | 0.6  | 23406       | 2607886       | 1.60 | 0.7  | 0.67           | 0.05 *                  | 0.07           |
| PRIVATE            | 67          | 16549         | 1.40 | 0.5  | 833         | 98385         | 1.61 | 0.7  | 0.65           | 0.20                    | 0.32           |
| CATHOLIC           | 1024        | 235319        | 1.48 | 0.6  | 2620        | 195174        | 1.64 | 0.7  | 0.66           | 0.17 *                  | 0.25           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3571        | 797108        | 1.58 | 0.7  | 5461        | 671454        | 1.64 | 0.7  | 0.67           | 0.06 *                  | 0.09           |
| NORTH CENTRAL      | 4523        | 908008        | 1.54 | 0.6  | 7777        | 838501        | 1.58 | 0.7  | 0.65           | 0.04 *                  | 0.07           |
| SOUTH              | 5410        | 782451        | 1.60 | 0.7  | 8756        | 870479        | 1.64 | 0.7  | 0.69           | 0.04 *                  | 0.06           |
| WEST               | 2952        | 520989        | 1.46 | 0.6  | 4865        | 521010        | 1.55 | 0.7  | 0.64           | 0.09 *                  | 0.14           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5571        | 953597        | 1.48 | 0.6  | 9758        | 1056400       | 1.55 | 0.7  | 0.65           | 0.08 *                  | 0.12           |
| ACADEMIC           | 6765        | 1383087       | 1.60 | 0.7  | 10254       | 1109712       | 1.66 | 0.7  | 0.68           | 0.06 *                  | 0.08           |
| VOCATIONAL         | 4119        | 671569        | 1.55 | 0.6  | 6474        | 694700        | 1.60 | 0.7  | 0.67           | 0.05 *                  | 0.08           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4491        | 776443        | 1.56 | 0.7  | 6087        | 571441        | 1.65 | 0.7  | 0.69           | 0.09 *                  | 0.14           |
| SUBURBAN           | 7880        | 1527350       | 1.53 | 0.6  | 12981       | 1439092       | 1.58 | 0.7  | 0.65           | 0.05 *                  | 0.07           |
| RURAL              | 3639        | 633091        | 1.59 | 0.6  | 7791        | 890911        | 1.62 | 0.7  | 0.67           | 0.03                    | 0.05           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-8

INFLUENCE OF FRIENDS AND RELATIVES ON PLANS FOR AFTER HIGH SCHOOL  
(1=NOT AT ALL; 3=A GREAT DEAL)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16539       | 3021095       | 2.15 | 0.7  | 27211       | 2937981       | 2.02 | 0.7  | 0.69           | -0.14 *                 | -0.20          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8202        | 1504182       | 2.11 | 0.7  | 12505       | 1361642       | 1.95 | 0.7  | 0.69           | -0.16 *                 | -0.23          |
| FEMALE             | 8332        | 1515896       | 2.20 | 0.7  | 13830       | 1486238       | 2.08 | 0.7  | 0.69           | -0.12 *                 | -0.18          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4750        | 730637        | 2.22 | 0.7  | 8064        | 780219        | 2.04 | 0.7  | 0.69           | -0.18 *                 | -0.27          |
| MIDDLE             | 7871        | 1544839       | 2.15 | 0.7  | 12486       | 1389331       | 2.01 | 0.7  | 0.69           | -0.14 *                 | -0.20          |
| HIGH               | 3857        | 734924        | 2.10 | 0.7  | 6037        | 707263        | 2.01 | 0.7  | 0.69           | -0.09 *                 | -0.13          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12790       | 2515773       | 2.13 | 0.7  | 19422       | 2312520       | 1.99 | 0.7  | 0.69           | -0.13 *                 | -0.20          |
| BLACK              | 2071        | 250157        | 2.36 | 0.7  | 3529        | 322266        | 2.13 | 0.7  | 0.69           | -0.22 *                 | -0.32          |
| ASIAN-AMERICAN     | 191         | 27609         | 2.20 | 0.7  | 354         | 38737         | 2.07 | 0.7  | 0.70           | -0.14                   | -0.19          |
| AMERICAN INDIAN    | 184         | 30888         | 2.23 | 0.7  | 201         | 20839         | 2.15 | 0.6  | 0.67           | -0.08                   | -0.12          |
| MEXICAN-AMERICAN   | 545         | 71464         | 2.26 | 0.6  | 1795        | 95992         | 2.12 | 0.7  | 0.68           | -0.14 *                 | -0.20          |
| PUERTO RICAN       | 95          | 9676          | 2.28 | 0.7  | 286         | 16579         | 2.05 | 0.7  | 0.71           | -0.24                   | -0.33          |
| OTHER HISPANIC     | 121         | 18565         | 2.28 | 0.7  | 918         | 62192         | 1.99 | 0.7  | 0.69           | -0.29 *                 | -0.42          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14824       | 2680571       | 2.15 | 0.7  | 23722       | 2639559       | 2.01 | 0.7  | 0.69           | -0.14 *                 | -0.20          |
| PRIVATE            | 67          | 16549         | 2.08 | 0.6  | 852         | 101676        | 2.05 | 0.7  | 0.69           | -0.03                   | -0.05          |
| CATHOLIC           | 1025        | 235344        | 2.15 | 0.7  | 2637        | 196746        | 2.05 | 0.7  | 0.69           | -0.10 *                 | -0.15          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3585        | 799069        | 2.09 | 0.7  | 5493        | 675161        | 1.98 | 0.7  | 0.68           | -0.11 *                 | -0.16          |
| NORTH CENTRAL      | 4533        | 910451        | 2.16 | 0.7  | 7865        | 847785        | 1.99 | 0.7  | 0.69           | -0.17 *                 | -0.25          |
| SOUTH              | 5455        | 789591        | 2.24 | 0.7  | 8906        | 885681        | 2.07 | 0.7  | 0.70           | -0.17 *                 | -0.25          |
| WEST               | 2966        | 522984        | 2.12 | 0.7  | 4947        | 529353        | 2.03 | 0.7  | 0.70           | -0.09 *                 | -0.13          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5612        | 959102        | 2.16 | 0.7  | 9394        | 1071226       | 2.01 | 0.7  | 0.69           | -0.15 *                 | -0.22          |
| ACADEMIC           | 6791        | 1387828       | 2.14 | 0.7  | 10327       | 1117890       | 2.03 | 0.7  | 0.69           | -0.11 *                 | -0.16          |
| VOCATIONAL         | 4135        | 673862        | 2.18 | 0.7  | 6603        | 706846        | 2.01 | 0.7  | 0.70           | -0.17 *                 | -0.25          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4516        | 780089        | 2.17 | 0.7  | 6188        | 581332        | 2.06 | 0.7  | 0.70           | -0.11 *                 | -0.16          |
| SUBURBAN           | 7917        | 1533553       | 2.14 | 0.7  | 13125       | 1453997       | 2.00 | 0.7  | 0.69           | -0.14 *                 | -0.20          |
| RURAL              | 3656        | 635233        | 2.17 | 0.7  | 7898        | 902652        | 2.01 | 0.7  | 0.69           | -0.16 *                 | -0.23          |

\*SIGNIFICANT AT .05 OR LESS

students than for those from other racial/ethnic groups. The decrease was greater in the North Central and Southern regions than in the Northeast or West and greater in rural than in urban or suburban communities. Cross-tabulations show that the decrease is largest for low SES students regardless of race, school type, curriculum, or community type.

In summary, parents, teachers, and guidance counselors all showed an increase between 1972 and 1980 in their influence on students' post-high-school plans. Friends and relatives showed a decrease in influence, especially among low SES students and among students in the North Central and Southern regions. Despite these changes, parents, friends and relatives continue to be more influential in students' post-high-school plans than teachers or guidance counselors. Teachers showed a larger increase from 1972 to 1980 in influence than did parents or guidance counselors, and this increase shows relatively little variation across groups, regions, school and community type, or curriculum. One possible interpretation of these data is that, between 1972 and 1980, students began to rely less on their peers and more on adults for advice about their post-high-school plans. The data also suggest that teachers may be assuming a larger role in counseling students, whether formally or informally.

#### E. OCCUPATIONAL ASPIRATIONS

The students were asked in 1972 and in 1980 to indicate the type of job they expected or planned to have at age 30. In both groups, more than 40 percent of the students indicated that they planned to enter professional jobs "such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, scientist, librarian, writer, social worker, actor/actress, athlete, politician, or school teacher." (See Table 6-9.) No other occupational category attracted such a large proportion of students. Clerical work "such as bank teller, bookkeeper, secretary, typist, mail carrier, or ticket agent" was the second most popular career goal, attracting 14 percent of the students in 1972 and 10 percent of the students in 1980. Each of the other occupational categories (craftsman, farmer, homemaker, laborer, military, operative, proprietor, protective service, sales service, and technical work) attracted fewer than 10 percent of the students. Craft occupations were the third most popular career choice in both 1972 and in 1980.

Between 1972 and 1980, aspirations for managerial or administrative occupations rose most rapidly, by 4.0 percentage points, from being selected by 3.1 percent of the 1972 students to being selected by 7.1 percent of the 1982 students. Aspirations for careers as business proprietors or managers rose by 2.2 percentage points, from 1.8 percent of the 1972 students to 4.0 percent of the 1980 students. Aspirations for clerical careers declined by 4.4 percentage points.

Professional occupations were the most popular choice for both females and males in both 1972 and in 1980. The second most frequently selected occupational category for males was craftsman, "such as baker,

Table 6-9

TYPE OF WORK STUDENT WANTS TO DO AT AGE 30

|                    | <u>Professional</u> | <u>Clerical</u> | <u>Crafts</u> | <u>Technical</u> | <u>Managerial</u> | <u>Proprietor</u> | <u>Service</u> | <u>Sales</u> | <u>Other</u> |
|--------------------|---------------------|-----------------|---------------|------------------|-------------------|-------------------|----------------|--------------|--------------|
| <u>TOTAL GROUP</u> |                     |                 |               |                  |                   |                   |                |              |              |
| 1972               | 45.4                | 14.2            | 7.5           | 6.6              | 3.1               | 1.8               | 4.2            | 3.0          | 14.2         |
| 1980               | 43.4                | 9.8             | 8.3           | 8.2              | 7.1               | 4.0               | 3.5            | 2.1          | 13.6         |
| <u>SEX</u>         |                     |                 |               |                  |                   |                   |                |              |              |
| <u>Males</u>       |                     |                 |               |                  |                   |                   |                |              |              |
| 1972               | 41.8                | 1.9             | 15.1          | 8.8              | 5.1               | 3.2               | 1.6            | 2.7          | 19.8         |
| 1980               | 38.8                | 1.3             | 15.7          | 10.5             | 7.9               | 5.6               | 0.7            | 2.0          | 17.5         |
| <u>Females</u>     |                     |                 |               |                  |                   |                   |                |              |              |
| 1972               | 48.8                | 25.5            | 0.5           | 4.6              | 1.3               | 0.5               | 6.7            | 3.3          | 8.8          |
| 1980               | 48.7                | 17.7            | 1.1           | 6.0              | 6.5               | 2.5               | 6.1            | 2.2          | 9.2          |
| <u>SES</u>         |                     |                 |               |                  |                   |                   |                |              |              |
| <u>Low</u>         |                     |                 |               |                  |                   |                   |                |              |              |
| 1972               | 30.7                | 21.4            | 9.3           | 6.8              | 2.4               | 1.3               | 6.7            | 3.3          | 18.1         |
| 1980               | 32.5                | 15.4            | 10.8          | 7.9              | 5.3               | 3.0               | 5.1            | 2.0          | 18.0         |
| <u>Middle</u>      |                     |                 |               |                  |                   |                   |                |              |              |
| 1972               | 41.8                | 15.4            | 8.3           | 7.3              | 2.9               | 1.6               | 4.4            | 3.2          | 15.1         |
| 1980               | 41.5                | 9.9             | 9.0           | 9.3              | 6.7               | 4.1               | 3.6            | 2.0          | 13.9         |
| <u>High</u>        |                     |                 |               |                  |                   |                   |                |              |              |
| 1972               | 63.8                | 6.2             | 4.6           | 5.3              | 4.1               | 2.6               | 2.1            | 2.5          | 8.8          |
| 1980               | 58.4                | 4.5             | 4.7           | 6.8              | 9.5               | 4.4               | 1.7            | 2.1          | 7.9          |
| <u>RACE</u>        |                     |                 |               |                  |                   |                   |                |              |              |
| <u>White</u>       |                     |                 |               |                  |                   |                   |                |              |              |
| 1972               | 46.1                | 13.1            | 7.7           | 6.5              | 3.1               | 1.9               | 4.3            | 3.1          | 14.2         |
| 1980               | 43.9                | 9.3             | 8.6           | 7.9              | 7.0               | 4.2               | 3.5            | 2.1          | 13.5         |
| <u>Black</u>       |                     |                 |               |                  |                   |                   |                |              |              |
| 1972               | 40.0                | 26.5            | 3.6           | 8.7              | 3.3               | 1.1               | 2.8            | 1.9          | 12.1         |
| 1980               | 42.6                | 12.5            | 6.0           | 10.2             | 8.3               | 3.1               | 3.8            | 2.5          | 11.0         |
| <u>Hispanic</u>    |                     |                 |               |                  |                   |                   |                |              |              |
| 1972               | 38.2                | 23.4            | 7.6           | 7.8              | 3.0               | 1.6               | 4.5            | 2.0          | 11.9         |
| 1980               | 38.9                | 12.5            | 9.0           | 9.0              | 5.2               | 3.6               | 3.8            | 2.1          | 15.9         |

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Table 6-9 (continued)

## TYPE OF WORK STUDENT WANTS TO DO AT AGE 30

|                      | <u>Professional</u> | <u>Clerical</u> | <u>Crafts</u> | <u>Technical</u> | <u>Managerial</u> | <u>Proprietor</u> | <u>Service</u> | <u>Sales</u> | <u>Other</u> |
|----------------------|---------------------|-----------------|---------------|------------------|-------------------|-------------------|----------------|--------------|--------------|
| <u>CURRICULUM</u>    |                     |                 |               |                  |                   |                   |                |              |              |
| <u>Academic</u>      |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                 | 65.0                | 5.5             | 3.5           | 6.8              | 3.4               | 1.3               | 2.4            | 2.4          | 9.7          |
| 1980                 | 64.1                | 4.0             | 2.8           | 8.4              | 7.9               | 2.8               | 1.5            | 1.4          | 7.1          |
| <u>General</u>       |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                 | 34.0                | 12.0            | 11.2          | 6.4              | 2.7               | 2.8               | 6.6            | 3.7          | 20.6         |
| 1980                 | 36.4                | 8.8             | 10.1          | 7.6              | 7.0               | 4.9               | 4.8            | 2.7          | 17.7         |
| <u>Vocational</u>    |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                 | 12.9                | 38.9            | 12.3          | 6.6              | 2.9               | 1.7               | 5.5            | 3.6          | 15.6         |
| 1980                 | 22.3                | 20.3            | 14.3          | 8.8              | 6.0               | 4.5               | 4.5            | 2.4          | 16.9         |
| <u>SCHOOL TYPE</u>   |                     |                 |               |                  |                   |                   |                |              |              |
| <u>Public</u>        |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                 | 45.0                | 13.8            | 7.8           | 6.6              | 3.1               | 1.8               | 4.4            | 3.1          | 14.4         |
| 1980                 | 42.0                | 10.1            | 8.8           | 8.4              | 7.0               | 3.9               | 3.6            | 2.1          | 14.1         |
| <u>Private</u>       |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                 | 58.4                | 11.5            | 6.9           | 3.4              | 1.7               | 0.0               | 3.1            | 0.0          | 15.0         |
| 1980                 | 58.1                | 6.0             | 4.7           | 5.2              | 7.5               | 7.2               | 2.2            | 1.1          | 8.0          |
| <u>Catholic</u>      |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                 | 52.7                | 15.4            | 5.0           | 6.6              | 3.1               | 1.7               | 3.0            | 2.7          | 9.8          |
| 1980                 | 56.3                | 8.3             | 4.2           | 7.2              | 8.2               | 3.3               | 2.9            | 2.1          | 7.5          |
| <u>REGION</u>        |                     |                 |               |                  |                   |                   |                |              |              |
| <u>Northeast</u>     |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                 | 49.4                | 14.2            | 6.7           | 6.1              | 3.2               | 1.7               | 3.9            | 3.0          | 11.8         |
| 1980                 | 46.9                | 9.5             | 7.6           | 7.7              | 8.1               | 4.2               | 3.0            | 1.6          | 11.4         |
| <u>North Central</u> |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                 | 41.5                | 14.5            | 8.7           | 6.9              | 2.9               | 1.6               | 5.5            | 3.7          | 14.7         |
| 1980                 | 42.5                | 8.9             | 9.4           | 7.8              | 7.1               | 3.5               | 4.1            | 2.3          | 14.4         |
| <u>South</u>         |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                 | 44.0                | 16.4            | 6.5           | 7.0              | 3.4               | 2.1               | 3.1            | 3.0          | 14.6         |
| 1980                 | 41.4                | 11.9            | 7.8           | 8.8              | 6.6               | 3.9               | 3.5            | 2.3          | 13.8         |

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Table 6-9 (continued)

TYPE OF WORK STUDENT WANTS TO DO AT AGE 30

|                       | <u>Professional</u> | <u>Clerical</u> | <u>Crafts</u> | <u>Technical</u> | <u>Managerial</u> | <u>Proprietor</u> | <u>Service</u> | <u>Sales</u> | <u>Other</u> |
|-----------------------|---------------------|-----------------|---------------|------------------|-------------------|-------------------|----------------|--------------|--------------|
| <u>REGION (cont.)</u> |                     |                 |               |                  |                   |                   |                |              |              |
| <u>West</u>           |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                  | 48.3                | 10.1            | 8.3           | 6.6              | 2.9               | 1.8               | 4.2            | 2.0          | 15.8         |
| 1980                  | 44.5                | 8.4             | 8.3           | 8.6              | 6.6               | 4.4               | 3.5            | 2.1          | 13.6         |
| <u>COMMUNITY</u>      |                     |                 |               |                  |                   |                   |                |              |              |
| <u>Urban</u>          |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                  | 45.4                | 16.4            | 6.7           | 7.1              | 2.8               | 1.9               | 4.0            | 3.3          | 12.4         |
| 1980                  | 46.9                | 11.4            | 7.6           | 8.8              | 7.1               | 3.7               | 3.2            | 1.8          | 9.5          |
| <u>Suburban</u>       |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                  | 50.0                | 12.3            | 6.7           | 6.3              | 3.4               | 1.9               | 3.7            | 3.1          | 12.6         |
| 1980                  | 45.7                | 8.7             | 7.8           | 8.5              | 7.6               | 4.2               | 3.2            | 2.3          | 12.0         |
| <u>Rural</u>          |                     |                 |               |                  |                   |                   |                |              |              |
| 1972                  | 35.2                | 15.4            | 10.5          | 6.6              | 2.8               | 1.4               | 5.5            | 2.4          | 20.2         |
| 1980                  | 38.0                | 10.6            | 9.6           | 7.3              | 6.2               | 3.8               | 4.2            | 2.0          | 18.3         |



automobile mechanic, machinist, painter, plumber, telephone installer, or carpenter," attracting about 15 percent of the male respondents in each year. For females, clerical work was the second most frequently selected occupational category, attracting 25 percent of the 1972 females and 18 percent of the 1980 respondents. Males showed the largest 1972 to 1980 decline in aspirations for a professional career, going from 41.8 percent in 1972 to 38.8 percent in 1980. The occupational category with the largest increase for males was proprietor, attracting 3.2 percent of the 1972 group and 5.6 percent of the 1980 group. For females, the largest decline was in aspirations for clerical work, going from 25.5 percent of the 1972 female respondents to 17.7 percent of the 1980 females. The largest increase in occupational aspirations among females was for managerial careers, rising from 1.3 percent of the 1972 females to 6.5 percent of the 1980 females.

Professional occupations were also the most frequently mentioned occupational aspiration by students at all socioeconomic levels. However, only about 30 percent of the low SES students aspired toward a professional occupation, as contrasted with about 60 percent of the high SES students. Clerical occupations were the second most popular choice for low and middle SES students in both 1972 and 1980 and for high SES students in 1972. By 1980, however, managerial occupations had become the second most popular choice for high SES students, being chosen by 9.5 percent of the group. Aspirations for professional occupations declined by 5.4 percentage points among high SES students between 1972 and 1980, while plans for managerial occupations rose by 4.4 percentage points. Among middle SES students, aspirations for clerical occupations decreased by 5.5 percentage points, and plans for managerial occupations increased by 3.8 percentage points. Aspirations for jobs in clerical occupations declined 6.0 percentage points among low SES students while aspirations for jobs in managerial occupations rose to 2.9 percent in this group.

Results for White, Black and Hispanic students showed similar patterns. Professional occupations were the first choice of 38 percent to 46 percent of the students in each of these three racial/ethnic groups, and clerical occupations were the area with the second highest level of interest. White students showed a slight decline between 1972 and 1980 in their plans for professional occupations while Black and Hispanic students showed a slight increase. Plans for jobs in clerical occupations decreased in all three groups; the decreases were larger for the Black and Hispanic students than for the White students. Crafts occupations were the third most popular choice for White students in both 1972 and 1980. Black and Hispanic students, however, placed technical occupations as their third choice.

It is no surprise to find that almost two-thirds of the 1972 and 1980 students in the academic curriculum aspired to professional occupations. It is somewhat surprising, however, to find that slightly more than a third of the students in the general curriculum had similar aspirations. Clerical occupations were the first choice of vocational students in 1972 but, by 1980, more than 20 percent of these students

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planned or expected to have a job in a professional occupation by the time they reached age 30. Technical occupations were the second most frequently mentioned area by academic students in both 1972 and in 1980. In 1972, clerical occupations were the second ranked choice among general curriculum students. By 1980, however, craft occupations had gained second place, primarily because of a 3.2 percentage point decline in general curriculum students' aspirations for clerical occupations.

Aspirations for jobs in professional occupations were higher among private and Catholic school students than among public school students, but the professions remained the first choice of students in all three types of schools. Clerical occupations were the second choice of students in all three types of schools in 1972 and for public and Catholic school students in 1980. In 1980, however, private school students placed managerial occupations as their second choice.

The analysis of occupational aspirations by region and by community type follows the pattern already evident. In each group, professional occupations are the dominant choice, although the professionals are chosen less often by rural students than by those in urban or suburban communities. Clerical occupations were the second choice for all regions and for all community types in 1972 and for most regions by community types in 1980. By 1980, however, some variations emerged with students in the North Central region placing craft occupations in second position while those in the West ranked technical occupations as their second highest choice.

In summary, high school students in 1972 and in 1980 were most likely to aspire to a job in a professional occupation. Clerical occupations were the second most popular occupational choice in 1972, but by 1980 there was evidence of declining interest in this type of work and rising interest in managerial and technical work. The questionnaire grouping of a large number of professional occupations makes it impossible to tease apart the likely variations among this type of work, such as the declining interest in teaching and growing interest in law and medicine which has been reported both in the popular press and in other studies of students' occupational aspirations.

#### F. CAREER VALUES

The student questionnaire asked, in both 1972 and 1980, about the importance of attitudes and values which affect career plans. The scale ranged from 1 = Not important to 3 = Very important. The results are summarized in Table 6-10. As can be seen, although all of these career values increased in importance between 1972 and 1980, their rank ordering did not change. The two highest ranked career values showed increases of small effect size (probably because of ceiling effect). The remaining career values showed moderate-sized increases.

The value placed on having work that is important and interesting increased at about the same rate across sex groups and across curriculum, region, and community type. (See Tables 6-11 to 6-16.) The increase in the importance placed on working with sociable, friendly people was greater for males than for females, and for students of high rather than low SES. The importance placed on the freedom to make one's own decisions increased more for females than for males; it also increased more for nonpublic than for public school students. The increase was greater for Whites than for Blacks in all SES groups. The increase in the value placed on freedom to make one's own decisions had the largest effect size, across all groups, of all the career-related values.

Table 6-10

Changes in Values Related to Career Plans - 1972 and 1980

| <u>Value</u>                                       | <u>Mean<br/>1972</u> | <u>Mean<br/>1980</u> | <u>Differ-<br/>ence</u> | <u>Effect<br/>Size</u> |
|----------------------------------------------------|----------------------|----------------------|-------------------------|------------------------|
| Work that seems important and interesting          | 2.77                 | 2.88                 | 0.07*                   | 0.16                   |
| Meeting and working with sociable, friendly people | 2.49                 | 2.61                 | 0.12*                   | 0.20                   |
| Freedom to make own decisions                      | 2.32                 | 2.58                 | 0.26*                   | 0.43                   |
| Job security and permanence                        | 2.24                 | 2.50                 | 0.26*                   | 0.38                   |
| Good income to start or in a few years             | 2.12                 | 2.35                 | 0.23*                   | 0.34                   |
| Previous work experience in the area               | 1.73                 | 2.01                 | 0.28*                   | 0.36                   |

\*Significant at .05 or less

The importance placed on job security also increased more for females than for males. By 1980, both sexes placed equal value on job security. The increase was greater for high SES than low SES students. In 1972, the importance placed on this value decreased from low to high SES groups; by 1980, the importance was similar in all three SES groups. Students in the academic curriculum and those from suburban communities showed larger increases than those in other curricula and in other types of communities. The general effect of the changes in the students' view of the importance of job security was to make all groups more similar in 1980 than they had been in 1972. The increase was somewhat less for students in the vocational curriculum, who placed the highest importance on this value in 1972, than for students in other curricular areas.

The value placed on having a career with a good income increased more among females than among males and more among high SES students than low SES students. Cross-tabulations by sex and curriculum show the

Table 6-11

IMPORTANCE TO CAREER PLANS: WORK THAT SEEMS IMPORTANT AND INTERESTING TO ME  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16259       | 2975979       | 2.77 | 0.5  | 26688       | 2881077       | 2.84 | 0.4  | 0.43           | 0.07 *                  | 0.16           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8037        | 1477860       | 2.72 | 0.5  | 12442       | 1352601       | 2.79 | 0.5  | 0.47           | 0.07 *                  | 0.15           |
| FEMALE             | 8217        | 1497102       | 2.81 | 0.4  | 13741       | 1477159       | 2.88 | 0.4  | 0.38           | 0.07 *                  | 0.19           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4647        | 717850        | 2.72 | 0.5  | 7889        | 760768        | 2.80 | 0.5  | 0.48           | 0.08 *                  | 0.17           |
| MIDDLE             | 7762        | 1524311       | 2.77 | 0.5  | 12293       | 1368840       | 2.84 | 0.4  | 0.43           | 0.07 *                  | 0.18           |
| HIGH               | 3800        | 724827        | 2.82 | 0.4  | 5965        | 698873        | 2.88 | 0.4  | 0.39           | 0.06 *                  | 0.16           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12633       | 2485861       | 2.77 | 0.5  | 19188       | 2284638       | 2.85 | 0.4  | 0.42           | 0.07 *                  | 0.18           |
| BLACK              | 1993        | 241946        | 2.75 | 0.5  | 3384        | 307694        | 2.81 | 0.5  | 0.47           | 0.05 *                  | 0.11           |
| ASIAN-AMERICAN     | 189         | 27370         | 2.79 | 0.5  | 349         | 37777         | 2.81 | 0.4  | 0.45           | 0.03                    | 0.06           |
| AMERICAN INDIAN    | 180         | 30453         | 2.71 | 0.5  | 204         | 20832         | 2.72 | 0.5  | 0.53           | 0.01                    | 0.03           |
| MEXICAN-AMERICAN   | 531         | 69215         | 2.76 | 0.5  | 1769        | 94594         | 2.81 | 0.4  | 0.45           | 0.05                    | 0.10           |
| PUERTO RICAN       | 94          | 9580          | 2.70 | 0.5  | 291         | 16908         | 2.82 | 0.4  | 0.47           | 0.12                    | 0.26           |
| OTHER HISPANIC     | 113         | 17238         | 2.72 | 0.5  | 901         | 60366         | 2.76 | 0.5  | 0.50           | 0.04                    | 0.09           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14573       | 2641506       | 2.77 | 0.5  | 23254       | 2587741       | 2.84 | 0.4  | 0.44           | 0.07 *                  | 0.16           |
| PRIVATE            | 66          | 16285         | 2.82 | 0.4  | 838         | 100035        | 2.84 | 0.4  | 0.42           | 0.02                    | 0.05           |
| CATHOLIC           | 1010        | 231101        | 2.77 | 0.5  | 2596        | 193302        | 2.87 | 0.4  | 0.40           | 0.10 *                  | 0.24           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3532        | 789515        | 2.78 | 0.5  | 5447        | 669288        | 2.85 | 0.4  | 0.43           | 0.07 *                  | 0.16           |
| NORTH CENTRAL      | 4485        | 901714        | 2.77 | 0.5  | 7666        | 825832        | 2.84 | 0.4  | 0.42           | 0.08 *                  | 0.18           |
| SOUTH              | 5342        | 773103        | 2.76 | 0.5  | 8698        | 861628        | 2.82 | 0.4  | 0.45           | 0.06 *                  | 0.13           |
| WEST               | 2900        | 511647        | 2.76 | 0.5  | 4877        | 524330        | 2.85 | 0.4  | 0.43           | 0.08 *                  | 0.19           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5482        | 939839        | 2.72 | 0.5  | 9670        | 1045775       | 2.81 | 0.4  | 0.47           | 0.09 *                  | 0.19           |
| ACADEMIC           | 6705        | 1371675       | 2.82 | 0.4  | 10192       | 1103813       | 2.89 | 0.3  | 0.37           | 0.07 *                  | 0.19           |
| VOCATIONAL         | 4071        | 664162        | 2.72 | 0.5  | 6441        | 689790        | 2.80 | 0.4  | 0.47           | 0.08 *                  | 0.17           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4442        | 769513        | 2.78 | 0.5  | 6048        | 569179        | 2.84 | 0.4  | 0.43           | 0.06 *                  | 0.14           |
| SUBURBAN           | 7817        | 1514571       | 2.78 | 0.5  | 12904       | 1427652       | 2.85 | 0.4  | 0.42           | 0.07 *                  | 0.16           |
| RURAL              | 3619        | 630253        | 2.73 | 0.5  | 7736        | 884246        | 2.82 | 0.4  | 0.45           | 0.09 *                  | 0.21           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-12

IMPORTANCE TO CAREER PLANS: MEETING AND WORKING WITH SOCIABLE, FRIENDLY PEOPLE  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16269       | 2976408       | 2.49 | 0.6  | 26710       | 2884009       | 2.61 | 0.6  | 0.60           | 0.12 *                  | 0.20           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8044        | 1479396       | 2.36 | 0.7  | 12444       | 1352436       | 2.52 | 0.6  | 0.63           | 0.16 *                  | 0.25           |
| FEMALE             | 8220        | 1495996       | 2.62 | 0.6  | 13758       | 1480273       | 2.70 | 0.5  | 0.54           | 0.07 *                  | 0.14           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4662        | 719522        | 2.54 | 0.6  | 7907        | 762895        | 2.62 | 0.6  | 0.59           | 0.08 *                  | 0.14           |
| MIDDLE             | 7768        | 1525735       | 2.49 | 0.6  | 12296       | 1369352       | 2.62 | 0.6  | 0.60           | 0.12 *                  | 0.21           |
| HIGH               | 3791        | 722488        | 2.44 | 0.7  | 5963        | 699028        | 2.60 | 0.6  | 0.61           | 0.15 *                  | 0.25           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12630       | 2485475       | 2.48 | 0.6  | 19188       | 2285533       | 2.61 | 0.6  | 0.60           | 0.13 *                  | 0.22           |
| BLACK              | 2002        | 242631        | 2.62 | 0.6  | 3399        | 309237        | 2.64 | 0.6  | 0.57           | 0.01                    | 0.03           |
| ASIAN-AMERICAN     | 190         | 27456         | 2.43 | 0.7  | 351         | 37980         | 2.63 | 0.6  | 0.61           | 0.20 *                  | 0.33           |
| AMERICAN INDIAN    | 180         | 30297         | 2.48 | 0.7  | 203         | 20803         | 2.57 | 0.6  | 0.63           | 0.09                    | 0.15           |
| MEXICAN-AMERICAN   | 535         | 69598         | 2.63 | 0.5  | 1771        | 94996         | 2.64 | 0.6  | 0.56           | 0.00                    | 0.01           |
| PUERTO RICAN       | 92          | 9292          | 2.63 | 0.5  | 290         | 16576         | 2.65 | 0.6  | 0.58           | 0.02                    | 0.04           |
| OTHER HISPANIC     | 111         | 17039         | 2.46 | 0.8  | 903         | 68682         | 2.66 | 0.6  | 0.59           | 0.20                    | 0.33           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14584       | 2642360       | 2.49 | 0.6  | 23277       | 2590496       | 2.62 | 0.6  | 0.60           | 0.12 *                  | 0.21           |
| PRIVATE            | 66          | 16285         | 2.50 | 0.6  | 835         | 99957         | 2.53 | 0.6  | 0.62           | 0.03                    | 0.05           |
| CATHOLIC           | 1006        | 230374        | 2.49 | 0.6  | 2598        | 193555        | 2.63 | 0.6  | 0.58           | 0.14 *                  | 0.23           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3528        | 788252        | 2.49 | 0.6  | 5455        | 670086        | 2.61 | 0.6  | 0.60           | 0.12 *                  | 0.20           |
| NORTH CENTRAL      | 4485        | 901719        | 2.48 | 0.6  | 7678        | 827211        | 2.61 | 0.6  | 0.60           | 0.13 *                  | 0.22           |
| SOUTH              | 5352        | 774130        | 2.54 | 0.6  | 8706        | 862879        | 2.62 | 0.6  | 0.59           | 0.08 *                  | 0.13           |
| WEST               | 2904        | 512308        | 2.44 | 0.7  | 4871        | 523833        | 2.61 | 0.6  | 0.61           | 0.17 *                  | 0.28           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5498        | 941754        | 2.49 | 0.6  | 9681        | 1046815       | 2.63 | 0.6  | 0.60           | 0.13 *                  | 0.22           |
| ACADEMIC           | 6693        | 1369575       | 2.46 | 0.6  | 10187       | 1104335       | 2.59 | 0.6  | 0.61           | 0.12 *                  | 0.20           |
| VOCATIONAL         | 4077        | 664777        | 2.56 | 0.6  | 6463        | 691307        | 2.64 | 0.6  | 0.58           | 0.09 *                  | 0.15           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4444        | 769792        | 2.53 | 0.6  | 6054        | 569265        | 2.63 | 0.6  | 0.59           | 0.10 *                  | 0.17           |
| SUBURBAN           | 7822        | 1514351       | 2.48 | 0.7  | 12912       | 1429243       | 2.61 | 0.6  | 0.60           | 0.13 *                  | 0.22           |
| RURAL              | 3624        | 631505        | 2.49 | 0.6  | 7744        | 885501        | 2.61 | 0.6  | 0.59           | 0.12 *                  | 0.20           |

\*SIGNIFICANT AT .05 OR LESS



Table 6-13

IMPORTANCE TO CAREER PLANS: FREEDOM TO MAKE MY OWN DECISIONS  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16180       | 2961363       | 2.32 | 0.7  | 26682       | 2880465       | 2.58 | 0.6  | 0.60           | 0.26 *                  | 0.43           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8018        | 1473568       | 2.37 | 0.6  | 12437       | 1351737       | 2.57 | 0.6  | 0.60           | 0.20 *                  | 0.33           |
| FEMALE             | 8157        | 1486779       | 2.27 | 0.7  | 13739       | 1477745       | 2.60 | 0.6  | 0.60           | 0.32 *                  | 0.54           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4617        | 712879        | 2.30 | 0.7  | 7901        | 761969        | 2.56 | 0.6  | 0.61           | 0.26 *                  | 0.43           |
| MIDDLE             | 7728        | 1517691       | 2.30 | 0.7  | 12284       | 1368004       | 2.57 | 0.6  | 0.61           | 0.26 *                  | 0.44           |
| HIGH               | 3785        | 721715        | 2.38 | 0.6  | 5956        | 698085        | 2.63 | 0.5  | 0.58           | 0.25 *                  | 0.42           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12581       | 2475411       | 2.31 | 0.7  | 19179       | 2283721       | 2.58 | 0.6  | 0.60           | 0.27 *                  | 0.45           |
| BLACK              | 1969        | 238713        | 2.45 | 0.6  | 3397        | 308920        | 2.61 | 0.6  | 0.59           | 0.16 *                  | 0.27           |
| ASIAN-AMERICAN     | 189         | 27370         | 2.29 | 0.7  | 350         | 37841         | 2.58 | 0.6  | 0.59           | 0.29 *                  | 0.50           |
| AMERICAN INDIAN    | 182         | 30614         | 2.41 | 0.7  | 202         | 20602         | 2.61 | 0.5  | 0.60           | 0.20                    | 0.34           |
| MEXICAN-AMERICAN   | 528         | 68485         | 2.37 | 0.6  | 1765        | 94799         | 2.57 | 0.6  | 0.60           | 0.19 *                  | 0.33           |
| PUERTO RICAN       | 92          | 9325          | 2.44 | 0.6  | 288         | 16421         | 2.62 | 0.5  | 0.57           | 0.18                    | 0.32           |
| OTHER HISPANIC     | 112         | 17139         | 2.22 | 0.7  | 901         | 60324         | 2.57 | 0.6  | 0.58           | 0.36 *                  | 0.61           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14506       | 2628926       | 2.33 | 0.7  | 23251       | 2587015       | 2.58 | 0.6  | 0.60           | 0.26 *                  | 0.43           |
| PRIVATE            | 64          | 15785         | 2.14 | 0.7  | 836         | 100157        | 2.58 | 0.6  | 0.60           | 0.44 *                  | 0.73           |
| CATHOLIC           | 1009        | 230819        | 2.26 | 0.7  | 2595        | 193293        | 2.59 | 0.5  | 0.59           | 0.33 *                  | 0.56           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3502        | 782198        | 2.29 | 0.7  | 5448        | 668748        | 2.59 | 0.6  | 0.61           | 0.30 *                  | 0.49           |
| NORTH CENTRAL      | 4465        | 898179        | 2.32 | 0.6  | 7668        | 826144        | 2.56 | 0.6  | 0.60           | 0.24 *                  | 0.41           |
| SOUTH              | 5318        | 770352        | 2.34 | 0.7  | 8697        | 862429        | 2.58 | 0.6  | 0.61           | 0.24 *                  | 0.39           |
| WEST               | 2895        | 510634        | 2.34 | 0.7  | 4869        | 523144        | 2.60 | 0.5  | 0.59           | 0.26 *                  | 0.44           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5456        | 935250        | 2.33 | 0.7  | 9681        | 1046559       | 2.58 | 0.6  | 0.60           | 0.25 *                  | 0.41           |
| ACADEMIC           | 6665        | 1363700       | 2.33 | 0.7  | 10176       | 1102693       | 2.59 | 0.6  | 0.60           | 0.26 *                  | 0.43           |
| VOCATIONAL         | 4058        | 662110        | 2.30 | 0.7  | 6445        | 689771        | 2.58 | 0.6  | 0.61           | 0.28 *                  | 0.47           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4423        | 766417        | 2.34 | 0.7  | 6055        | 569332        | 2.59 | 0.6  | 0.61           | 0.25 *                  | 0.42           |
| SUBURBAN           | 7778        | 1506126       | 2.32 | 0.7  | 12888       | 1426084       | 2.58 | 0.6  | 0.60           | 0.26 *                  | 0.44           |
| RURAL              | 3688        | 628362        | 2.30 | 0.7  | 7739        | 885049        | 2.57 | 0.6  | 0.60           | 0.27 *                  | 0.45           |

\*SIGNIFICANT AT .05 OR LESS



Table 6-14

IMPORTANCE TO CAREER PLANS: JOB SECURITY AND PERMANENCE  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16128       | 2953536       | 2.24 | 0.7  | 26635       | 2877261       | 2.50 | 0.6  | 0.67           | 0.26 *                  | 0.38           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7993        | 1471388       | 2.29 | 0.7  | 12431       | 1351111       | 2.50 | 0.6  | 0.67           | 0.21 *                  | 0.31           |
| FEMALE             | 8130        | 1481131       | 2.20 | 0.7  | 13696       | 1474258       | 2.50 | 0.6  | 0.67           | 0.30 *                  | 0.45           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4588        | 710127        | 2.31 | 0.7  | 7877        | 760304        | 2.51 | 0.6  | 0.66           | 0.20 *                  | 0.30           |
| MIDDLE             | 7721        | 1515868       | 2.26 | 0.7  | 12269       | 1366564       | 2.52 | 0.6  | 0.66           | 0.26 *                  | 0.39           |
| HIGH               | 3773        | 719353        | 2.14 | 0.7  | 5953        | 697954        | 2.46 | 0.7  | 0.70           | 0.31 *                  | 0.45           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12571       | 2472891       | 2.23 | 0.7  | 19162       | 2281485       | 2.49 | 0.6  | 0.67           | 0.26 *                  | 0.39           |
| BLACK              | 1946        | 235966        | 2.41 | 0.7  | 3371        | 307278        | 2.57 | 0.6  | 0.63           | 0.17 *                  | 0.26           |
| ASIAN-AMERICAN     | 190         | 27456         | 2.25 | 0.7  | 349         | 37802         | 2.57 | 0.6  | 0.64           | 0.33 *                  | 0.51           |
| AMERICAN INDIAN    | 179         | 30228         | 2.32 | 0.7  | 202         | 20681         | 2.49 | 0.6  | 0.66           | 0.17                    | 0.25           |
| MEXICAN-AMERICAN   | 522         | 68035         | 2.36 | 0.7  | 1770        | 94978         | 2.51 | 0.6  | 0.64           | 0.15 *                  | 0.24           |
| PUERTO RICAN       | 90          | 9232          | 2.30 | 0.8  | 287         | 16397         | 2.53 | 0.7  | 0.68           | 0.23                    | 0.33           |
| OTHER HISPANIC     | 109         | 16417         | 2.21 | 0.7  | 897         | 60520         | 2.52 | 0.6  | 0.61           | 0.30 *                  | 0.50           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14462       | 2622897       | 2.25 | 0.7  | 23201       | 2583725       | 2.51 | 0.6  | 0.66           | 0.26 *                  | 0.39           |
| PRIVATE            | 66          | 16285         | 2.00 | 0.8  | 836         | 10017         | 2.28 | 0.7  | 0.75           | 0.29                    | 0.38           |
| CATHOLIC           | 1003        | 228929        | 2.17 | 0.7  | 2598        | 193519        | 2.49 | 0.6  | 0.66           | 0.32 *                  | 0.48           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3489        | 779676        | 2.20 | 0.7  | 5434        | 667331        | 2.48 | 0.7  | 0.69           | 0.28 *                  | 0.41           |
| NORTH CENTRAL      | 4460        | 897499        | 2.25 | 0.7  | 7652        | 825543        | 2.51 | 0.6  | 0.66           | 0.26 *                  | 0.39           |
| SOUTH              | 5298        | 767416        | 2.29 | 0.7  | 8679        | 860439        | 2.51 | 0.6  | 0.66           | 0.22 *                  | 0.34           |
| WEST               | 2881        | 508945        | 2.23 | 0.7  | 4870        | 523948        | 2.49 | 0.6  | 0.68           | 0.26 *                  | 0.38           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5437        | 932230        | 2.26 | 0.7  | 9646        | 1044017       | 2.49 | 0.6  | 0.67           | 0.24 *                  | 0.35           |
| ACADEMIC           | 6663        | 1363402       | 2.18 | 0.7  | 10182       | 1103302       | 2.48 | 0.7  | 0.68           | 0.30 *                  | 0.44           |
| VOCATIONAL         | 4027        | 657600        | 2.37 | 0.7  | 6433        | 689080        | 2.55 | 0.6  | 0.63           | 0.18 *                  | 0.29           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4395        | 762492        | 2.28 | 0.7  | 6034        | 567943        | 2.52 | 0.6  | 0.67           | 0.24 *                  | 0.36           |
| SUBURBAN           | 7760        | 1503429       | 2.22 | 0.7  | 12883       | 1426755       | 2.50 | 0.6  | 0.67           | 0.28 *                  | 0.42           |
| RURAL              | 3604        | 628301        | 2.26 | 0.7  | 7718        | 882563        | 2.48 | 0.6  | 0.66           | 0.22 *                  | 0.34           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-15

IMPORTANCE TO CAREER PLANS: GOOD INCOME TO START OR WITHIN A FEW YEARS  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16203       | 2968041       | 2.12 | 0.7  | 26733       | 2886897       | 2.35 | 0.7  | 0.68           | 0.23 *                  | 0.34           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8029        | 1477757       | 2.20 | 0.7  | 12461       | 1354326       | 2.39 | 0.7  | 0.67           | 0.18 *                  | 0.28           |
| FEMALE             | 8169        | 1489268       | 2.04 | 0.7  | 13756       | 1479680       | 2.32 | 0.7  | 0.68           | 0.27 *                  | 0.40           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4613        | 713256        | 2.23 | 0.7  | 7914        | 763746        | 2.41 | 0.6  | 0.66           | 0.19 *                  | 0.28           |
| MIDDLE             | 7750        | 1522400       | 2.12 | 0.7  | 12313       | 1371143       | 2.35 | 0.7  | 0.67           | 0.23 *                  | 0.34           |
| HIGH               | 3791        | 723420        | 2.02 | 0.7  | 5966        | 699463        | 2.28 | 0.7  | 0.70           | 0.25 *                  | 0.36           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12612       | 2481592       | 2.09 | 0.7  | 19213       | 2287649       | 2.32 | 0.7  | 0.68           | 0.23 *                  | 0.34           |
| BLACK              | 1965        | 239290        | 2.40 | 0.7  | 3395        | 309531        | 2.56 | 0.6  | 0.62           | 0.16 *                  | 0.26           |
| ASIAN-AMERICAN     | 190         | 27456         | 2.08 | 0.7  | 353         | 38113         | 2.33 | 0.7  | 0.68           | 0.25 *                  | 0.37           |
| AMERICAN INDIAN    | 182         | 30614         | 2.25 | 0.7  | 203         | 20805         | 2.37 | 0.7  | 0.69           | 0.11                    | 0.16           |
| MEXICAN-AMERICAN   | 527         | 68874         | 2.29 | 0.7  | 1775        | 94993         | 2.41 | 0.6  | 0.64           | 0.12 *                  | 0.19           |
| PUERTO RICAN       | 91          | 9322          | 2.26 | 0.8  | 289         | 16417         | 2.29 | 0.7  | 0.75           | 0.03                    | 0.03           |
| OTHER HISPANIC     | 111         | 16968         | 2.03 | 0.8  | 900         | 60474         | 2.37 | 0.6  | 0.65           | 0.34 *                  | 0.52           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14528       | 2634987       | 2.13 | 0.7  | 23297       | 2593264       | 2.36 | 0.7  | 0.67           | 0.23 *                  | 0.35           |
| PRIVATE            | 66          | 16285         | 1.93 | 0.7  | 836         | 100017        | 2.15 | 0.8  | 0.75           | 0.22                    | 0.30           |
| CATHOLIC           | 1008        | 230835        | 2.02 | 0.7  | 2600        | 193615        | 2.30 | 0.7  | 0.67           | 0.28 *                  | 0.42           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3513        | 786063        | 2.06 | 0.7  | 5454        | 669801        | 2.33 | 0.7  | 0.69           | 0.26 *                  | 0.38           |
| NORTH CENTRAL      | 4472        | 898950        | 2.12 | 0.7  | 7687        | 829507        | 2.33 | 0.7  | 0.67           | 0.21 *                  | 0.31           |
| SOUTH              | 5322        | 771598        | 2.20 | 0.7  | 8709        | 862826        | 2.41 | 0.6  | 0.67           | 0.20 *                  | 0.31           |
| WEST               | 2896        | 511430        | 2.10 | 0.7  | 4883        | 524763        | 2.33 | 0.7  | 0.68           | 0.23 *                  | 0.34           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5475        | 938486        | 2.15 | 0.7  | 9698        | 1048946       | 2.38 | 0.7  | 0.67           | 0.23 *                  | 0.34           |
| ACADEMIC           | 6692        | 1369776       | 2.03 | 0.7  | 10190       | 1104212       | 2.27 | 0.7  | 0.69           | 0.24 *                  | 0.34           |
| VOCATIONAL         | 4035        | 659477        | 2.28 | 0.7  | 6467        | 692376        | 2.44 | 0.6  | 0.64           | 0.17 *                  | 0.26           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4417        | 766496        | 2.15 | 0.7  | 6071        | 571389        | 2.39 | 0.7  | 0.68           | 0.24 *                  | 0.35           |
| SUBURBAN           | 7799        | 1511371       | 2.09 | 0.7  | 12909       | 1429283       | 2.34 | 0.7  | 0.68           | 0.25 *                  | 0.37           |
| RURAL              | 3612        | 629330        | 2.16 | 0.7  | 7753        | 886225        | 2.34 | 0.7  | 0.67           | 0.18 *                  | 0.27           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-16

IMPORTANCE TO CAREER PLANS: PREVIOUS WORK EXPERIENCE IN THE AREA  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16246       | 2975798       | 1.73 | 0.8  | 26734       | 2886084       | 2.01 | 0.8  | 0.77           | 0.28 *                  | 0.36           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8045        | 1481437       | 1.73 | 0.8  | 12469       | 1354166       | 1.98 | 0.8  | 0.78           | 0.25 *                  | 0.32           |
| FEMALE             | 8196        | 1493345       | 1.72 | 0.8  | 13745       | 1478885       | 2.03 | 0.8  | 0.77           | 0.31 *                  | 0.40           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4632        | 716194        | 1.78 | 0.8  | 7913        | 763806        | 2.10 | 0.8  | 0.77           | 0.32 *                  | 0.42           |
| MIDDLE             | 7767        | 1525640       | 1.74 | 0.8  | 12316       | 1370152       | 2.00 | 0.8  | 0.78           | 0.26 *                  | 0.34           |
| HIGH               | 3797        | 724811        | 1.65 | 0.7  | 5962        | 699272        | 1.91 | 0.8  | 0.77           | 0.26 *                  | 0.34           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12632       | 2487469       | 1.71 | 0.8  | 19208       | 2287157       | 1.98 | 0.8  | 0.77           | 0.27 *                  | 0.34           |
| BLACK              | 1985        | 240266        | 1.81 | 0.8  | 3392        | 308902        | 2.15 | 0.8  | 0.77           | 0.34 *                  | 0.44           |
| ASIAN-AMERICAN     | 188         | 27004         | 1.59 | 0.7  | 351         | 38157         | 2.08 | 0.8  | 0.77           | 0.49 *                  | 0.64           |
| AMERICAN INDIAN    | 182         | 30363         | 1.83 | 0.8  | 202         | 20703         | 2.09 | 0.8  | 0.77           | 0.26                    | 0.34           |
| MEXICAN-AMERICAN   | 528         | 69089         | 1.91 | 0.8  | 1781        | 94678         | 2.15 | 0.8  | 0.77           | 0.24 *                  | 0.31           |
| PUERTO RICAN       | 90          | 9132          | 1.64 | 0.7  | 293         | 16745         | 2.11 | 0.8  | 0.78           | 0.47 *                  | 0.60           |
| OTHER HISPANIC     | 111         | 17218         | 1.69 | 0.8  | 903         | 60780         | 2.07 | 0.7  | 0.75           | 0.38 *                  | 0.51           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14566       | 2641734       | 1.73 | 0.8  | 23299       | 2592535       | 2.02 | 0.8  | 0.77           | 0.29 *                  | 0.38           |
| PRIVATE            | 67          | 16549         | 1.65 | 0.8  | 838         | 100274        | 1.88 | 0.8  | 0.79           | 0.22                    | 0.28           |
| CATHOLIC           | 1007        | 230991        | 1.67 | 0.8  | 2597        | 193274        | 1.89 | 0.8  | 0.78           | 0.21 *                  | 0.27           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3518        | 787118        | 1.70 | 0.8  | 5442        | 667545        | 1.98 | 0.8  | 0.78           | 0.29 *                  | 0.37           |
| NORTH CENTRAL      | 4485        | 902441        | 1.75 | 0.8  | 7688        | 829313        | 2.01 | 0.8  | 0.77           | 0.25 *                  | 0.33           |
| SOUTH              | 5337        | 773000        | 1.72 | 0.8  | 8719        | 864265        | 2.00 | 0.8  | 0.77           | 0.28 *                  | 0.36           |
| WEST               | 2906        | 513240        | 1.73 | 0.8  | 4885        | 524961        | 2.05 | 0.8  | 0.77           | 0.32 *                  | 0.41           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5485        | 940645        | 1.75 | 0.8  | 9696        | 1048759       | 2.03 | 0.8  | 0.76           | 0.28 *                  | 0.37           |
| ACADEMIC           | 6694        | 1370706       | 1.64 | 0.8  | 10188       | 1103210       | 1.87 | 0.8  | 0.78           | 0.23 *                  | 0.29           |
| VOCATIONAL         | 4066        | 664145        | 1.88 | 0.8  | 6477        | 693199        | 2.19 | 0.7  | 0.76           | 0.31 *                  | 0.41           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4440        | 769644        | 1.74 | 0.8  | 6065        | 570637        | 2.07 | 0.8  | 0.78           | 0.33 *                  | 0.42           |
| SUBURBAN           | 7819        | 1515671       | 1.70 | 0.8  | 12907       | 1428130       | 1.99 | 0.8  | 0.78           | 0.29 *                  | 0.37           |
| RURAL              | 3613        | 629627        | 1.77 | 0.8  | 7762        | 887317        | 2.00 | 0.8  | 0.76           | 0.23 *                  | 0.30           |

\*SIGNIFICANT AT .05 OR LESS

increase to be somewhat greater for both males and females in the general and academic curricula than for those in the vocational curriculum.

The value placed on having previous work experience in a career area also increased more for females than for males and more for low than for middle or high SES students. Cross-tabulations showed larger increases among general and vocational curriculum females than the other sex by curriculum groups.

In summary, although students' career-related values showed a small to moderate increase between 1972 and 1980, the rank ordering of these values did not change. The main trend here appears to be toward an increased emphasis on the extrinsic aspects and rewards of the job (security and pay) rather than on the intrinsic and social aspects of work. A secondary trend is toward careers providing greater autonomy or freedom of choice. This more self-centered concern is consistent with diminishing altruism.

#### G. LIFE VALUES

The students were asked in 1972 and in 1980 how important they considered each of several life goals or values. The scale ranged from 1 = Not important to 3 = Very important. The results are summarized in Table 6-17. Cross-tabulations by the major classification variables are shown in Tables 6-18 to 6-27. As can be seen, success in work was the most important life goal in both years. Other consistently high-ranking life goals and values were strong friendships, marriage and family, steady work, and better opportunities for one's children. Most of the life goals and values covered in this questionnaire showed little change between 1972 and 1980. However, two showed a moderate increase, two a small increase, and one a moderate decrease.

The life value showing the greatest increase between 1972 and 1980 was making lots of money. It moved from 1.95, slightly below 2.0 midpoint for this scale, to 2.21, or moderately important. Students in 1980 also placed more importance on living close to parents and relatives than did students in 1972. Although this item shows a moderate increase, as indicated by its effect size, it is still one of the lower ranked values. Having steady work and success in work, which were already highly rated values in 1972, became even more highly rated by 1980, although the increase shows only a small effect size (probably because of ceiling effects). The other major change in these life goals and values is the decrease in the importance of working to correct social and economic inequalities. This life value shows a moderate decrease from 2.06, or slightly important, to 1.74, or moderately unimportant.

These data show what other studies of high school students' attitudes and values have shown. Namely, the social issues concern of the late 1960s and early 1970s had diminished considerably by 1980 while more self-centered economic concerns and interest in job success increased.

Table 6-17

Changes in Students' Life Values - 1972 and 1980

| <u>Value</u>                           | <u>Mean<br/>1972</u> | <u>Mean<br/>1980</u> | <u>Differ-<br/>ence</u> | <u>Effect<br/>Size</u> |
|----------------------------------------|----------------------|----------------------|-------------------------|------------------------|
| Success in Work                        | 2.83                 | 2.87                 | 0.04*                   | 0.11                   |
| Strong Friendships                     | 2.77                 | 2.79                 | 0.02*                   | 0.05                   |
| Marriage and Family Life               | 2.77                 | 2.76                 | -0.01                   | -0.02                  |
| Steady Work                            | 2.75                 | 2.82                 | 0.07*                   | 0.16                   |
| Better Opportunities for Your Children | 2.60                 | 2.61                 | 0.01                    | 0.02                   |
| Working to Correct Inequalities        | 2.06                 | 1.74                 | -0.32*                  | -0.47                  |
| Making Lots of Money                   | 1.95                 | 2.21                 | 0.25*                   | 0.40                   |
| Being a Community Leader               | 1.66                 | 1.61                 | -0.05*                  | -0.07                  |
| Living Close to Parents and Relatives  | 1.57                 | 1.82                 | 0.25*                   | 0.38                   |
| Getting Away from This Area            | 1.57                 | 1.59                 | 0.02                    | 0.03                   |

\*Significant at .05 or less

#### H. SELF-ESTEEM AND LOCUS OF CONTROL

The student questionnaire included four agree-disagree statements to assess self-esteem. The scale ranged from 1 = Disagree strongly to 4 = Agree strongly. As shown in Table 6-28, the mean 1972 response for all four items was 3.11, on the positive side of the scale's 2.5 midpoint. By 1980 the mean for these four items had risen to 3.19, indicating even higher self-esteem.

When the means are examined for the classification groups, there is a consistent tendency for Blacks to report higher self-esteem than Whites. (See Tables 6-29 to 6-32.) Changes toward more positive self-esteem were greater for males than for females, for high SES than low SES students, and for academic curriculum students in comparison to the general and vocational students.

The questionnaire also included four questions to assess whether the student had an external or internal locus of control, that is whether the students felt they had the power to control their own lives or if life events were beyond their control. The scale used ranged from 1 = I agree strongly (an index of external control) to 4 = I disagree strongly (an index of internal control). The mean 1972 score on each of the four items was on the internal control side of the scale's 2.5 midpoint. By

Table 6-18

IMPORTANCE IN YOUR LIFE OF SUCCESS IN WORK  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16564       | 3024733       | 2.83 | 0.4  | 27532       | 2967920       | 2.87 | 0.4  | 0.38           | 0.04 *                  | 0.11           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8211        | 1505685       | 2.85 | 0.4  | 12759       | 1385410       | 2.88 | 0.4  | 0.38           | 0.03 *                  | 0.08           |
| FEMALE             | 8348        | 1518032       | 2.82 | 0.4  | 13984       | 1502215       | 2.87 | 0.4  | 0.38           | 0.05 *                  | 0.14           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4778        | 735575        | 2.84 | 0.4  | 8193        | 790025        | 2.85 | 0.4  | 0.39           | 0.01                    | 0.02           |
| MIDDLE             | 7879        | 1545821       | 2.84 | 0.4  | 12595       | 1400431       | 2.88 | 0.4  | 0.37           | 0.04 *                  | 0.12           |
| HIGH               | 3846        | 732869        | 2.82 | 0.4  | 6095        | 713781        | 2.89 | 0.3  | 0.37           | 0.07 *                  | 0.20           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12789       | 2516140       | 2.83 | 0.4  | 19607       | 2334727       | 2.87 | 0.4  | 0.38           | 0.05 *                  | 0.12           |
| BLACK              | 2088        | 252548        | 2.92 | 0.3  | 3588        | 325612        | 2.91 | 0.3  | 0.32           | -0.01                   | -0.04          |
| ASIAN-AMERICAN     | 191         | 27563         | 2.78 | 0.4  | 356         | 38118         | 2.87 | 0.4  | 0.39           | 0.09                    | 0.24           |
| AMERICAN INDIAN    | 184         | 30573         | 2.87 | 0.3  | 206         | 21049         | 2.76 | 0.5  | 0.42           | -0.11                   | -0.27          |
| MEXICAN-AMERICAN   | 550         | 72126         | 2.87 | 0.4  | 1844        | 98757         | 2.85 | 0.4  | 0.40           | -0.02                   | -0.05          |
| PUERTO RICAN       | 95          | 9676          | 2.79 | 0.4  | 300         | 17543         | 2.80 | 0.5  | 0.49           | 0.01                    | 0.01           |
| OTHER HISPANIC     | 122         | 18844         | 2.86 | 0.4  | 931         | 63453         | 2.85 | 0.4  | 0.40           | -0.01                   | -0.04          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14846       | 2683897       | 2.83 | 0.4  | 24019       | 2667797       | 2.87 | 0.4  | 0.38           | 0.04 *                  | 0.10           |
| PRIVATE            | 66          | 16256         | 2.76 | 0.4  | 865         | 103422        | 2.85 | 0.4  | 0.38           | 0.09                    | 0.25           |
| CATHOLIC           | 1024        | 235113        | 2.81 | 0.4  | 2648        | 196701        | 2.88 | 0.3  | 0.37           | 0.07 *                  | 0.19           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3592        | 799800        | 2.82 | 0.4  | 5587        | 686806        | 2.88 | 0.4  | 0.38           | 0.06 *                  | 0.16           |
| NORTH CENTRAL      | 4542        | 912316        | 2.82 | 0.4  | 7911        | 849794        | 2.87 | 0.4  | 0.38           | 0.05 *                  | 0.13           |
| SOUTH              | 5467        | 790422        | 2.87 | 0.4  | 9016        | 894121        | 2.88 | 0.4  | 0.36           | 0.00                    | 0.01           |
| WEST               | 2963        | 522195        | 2.81 | 0.4  | 5018        | 537198        | 2.86 | 0.4  | 0.40           | 0.05 *                  | 0.13           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5627        | 962199        | 2.81 | 0.4  | 10024       | 1083512       | 2.85 | 0.4  | 0.41           | 0.05 *                  | 0.12           |
| ACADEMIC           | 6788        | 1385720       | 2.84 | 0.4  | 10392       | 1123937       | 2.90 | 0.3  | 0.35           | 0.06 *                  | 0.16           |
| VOCATIONAL         | 4156        | 676512        | 2.85 | 0.4  | 6712        | 716558        | 2.86 | 0.4  | 0.39           | 0.01                    | 0.04           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4533        | 783372        | 2.84 | 0.4  | 6293        | 589655        | 2.89 | 0.3  | 0.37           | 0.05 *                  | 0.14           |
| SUBURBAN           | 7918        | 1532387       | 2.82 | 0.4  | 13270       | 1467863       | 2.87 | 0.4  | 0.38           | 0.05 *                  | 0.13           |
| RURAL              | 3667        | 637121        | 2.86 | 0.4  | 7969        | 910402        | 2.86 | 0.4  | 0.38           | 0.01                    | 0.02           |

\*SIGNIFICANT AT .05 OR LESS



Table 6-19

IMPORTANCE IN YOUR LIFE OF STRONG FRIENDSHIPS  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 16520       | 3018899       | 2.77 | 0.5  | 27444       | 2958134       | 2.79 | 0.4  | 0.45           | 0.02 *                  | 0.05           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 8191        | 1503351       | 2.79 | 0.5  | 12719       | 1380830       | 2.79 | 0.4  | 0.45           | 0.01                    | 0.02           |
| FEMALE                    | 8324        | 1514531       | 2.76 | 0.5  | 13946       | 1498225       | 2.80 | 0.4  | 0.46           | 0.04 *                  | 0.09           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4752        | 732432        | 2.70 | 0.5  | 8149        | 785893        | 2.72 | 0.5  | 0.51           | 0.01                    | 0.03           |
| MIDDLE                    | 7865        | 1543730       | 2.78 | 0.5  | 12571       | 1397333       | 2.81 | 0.4  | 0.44           | 0.03 *                  | 0.06           |
| HIGH                      | 3845        | 732657        | 2.82 | 0.4  | 6085        | 712274        | 2.87 | 0.4  | 0.39           | 0.05 *                  | 0.13           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12781       | 2514445       | 2.80 | 0.4  | 19568       | 2329726       | 2.84 | 0.4  | 0.41           | 0.04 *                  | 0.09           |
| BLACK                     | 2059        | 249514        | 2.54 | 0.6  | 3557        | 323054        | 2.54 | 0.6  | 0.61           | 0.00                    | 0.00           |
| ASIAN-AMERICAN            | 190         | 27495         | 2.75 | 0.5  | 357         | 38257         | 2.84 | 0.4  | 0.43           | 0.09                    | 0.21           |
| AMERICAN INDIAN           | 105         | 30651         | 2.72 | 0.5  | 203         | 20801         | 2.70 | 0.5  | 0.51           | -0.02                   | -0.04          |
| MEXICAN-AMERICAN          | 546         | 71520         | 2.68 | 0.5  | 1843        | 98571         | 2.69 | 0.5  | 0.52           | 0.00                    | 0.01           |
| PUERTO RICAN              | 93          | 9469          | 2.52 | 0.6  | 294         | 16940         | 2.62 | 0.6  | 0.62           | 0.10                    | 0.16           |
| OTHER HISPANIC            | 120         | 18468         | 2.60 | 0.6  | 925         | 62680         | 2.73 | 0.5  | 0.50           | 0.13                    | 0.26           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14810       | 2679247       | 2.77 | 0.5  | 23932       | 2658281       | 2.79 | 0.5  | 0.46           | 0.02 *                  | 0.04           |
| PRIVATE                   | 66          | 16256         | 2.82 | 0.4  | 864         | 103264        | 2.85 | 0.4  | 0.39           | 0.03                    | 0.07           |
| CATHOLIC                  | 1022        | 234794        | 2.84 | 0.4  | 2648        | 196588        | 2.86 | 0.4  | 0.39           | 0.01                    | 0.04           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3585        | 798477        | 2.78 | 0.5  | 5569        | 684730        | 2.81 | 0.4  | 0.44           | 0.03                    | 0.06           |
| NORTH CENTRAL             | 4534        | 911280        | 2.77 | 0.5  | 7891        | 847972        | 2.81 | 0.4  | 0.44           | 0.03 *                  | 0.08           |
| SOUTH                     | 5446        | 787960        | 2.76 | 0.5  | 8984        | 890555        | 2.76 | 0.5  | 0.48           | 0.00                    | 0.00           |
| WEST                      | 2955        | 521182        | 2.77 | 0.5  | 5000        | 534876        | 2.82 | 0.4  | 0.44           | 0.04 *                  | 0.10           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5607        | 959812        | 2.75 | 0.5  | 9996        | 1080313       | 2.78 | 0.5  | 0.47           | 0.03 *                  | 0.06           |
| ACADEMIC                  | 6774        | 1394495       | 2.80 | 0.4  | 10368       | 1121725       | 2.84 | 0.4  | 0.41           | 0.04 *                  | 0.09           |
| VOCATIONAL                | 4138        | 674290        | 2.73 | 0.5  | 6679        | 712715        | 2.74 | 0.5  | 0.49           | 0.01                    | 0.02           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4519        | 781754        | 2.75 | 0.5  | 6257        | 585688        | 2.75 | 0.5  | 0.49           | 0.00                    | 0.01           |
| SUBURBAN                  | 7904        | 1530083       | 2.79 | 0.5  | 13249       | 1465057       | 2.81 | 0.4  | 0.44           | 0.02 *                  | 0.05           |
| RURAL                     | 3660        | 636318        | 2.77 | 0.5  | 7938        | 907388        | 2.80 | 0.4  | 0.45           | 0.03                    | 0.06           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-20

IMPORTANCE IN YOUR LIFE OF MARRIAGE AND FAMILY LIFE  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 16494       | 3013069       | 2.77 | 0.5  | 27486       | 2961403       | 2.76 | 0.5  | 0.53           | -0.01                   | -0.02          |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 8167        | 1499247       | 2.72 | 0.6  | 12730       | 1380889       | 2.72 | 0.6  | 0.57           | -0.00                   | -0.01          |
| FEMALE                    | 8322        | 1512804       | 2.81 | 0.5  | 13969       | 1500598       | 2.80 | 0.5  | 0.48           | -0.01                   | -0.03          |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4757        | 733139        | 2.79 | 0.5  | 8177        | 787823        | 2.75 | 0.5  | 0.53           | -0.04 *                 | -0.08          |
| MIDDLE                    | 7852        | 1540666       | 2.77 | 0.5  | 12569       | 1397334       | 2.77 | 0.5  | 0.52           | -0.00                   | -0.01          |
| HIGH                      | 3829        | 729360        | 2.74 | 0.6  | 6087        | 712566        | 2.76 | 0.5  | 0.53           | 0.03                    | 0.05           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12750       | 2507850       | 2.77 | 0.5  | 19571       | 2329654       | 2.77 | 0.5  | 0.51           | -0.00                   | -0.00          |
| BLACK                     | 2065        | 250251        | 2.75 | 0.6  | 3584        | 325720        | 2.69 | 0.6  | 0.59           | -0.06 *                 | -0.10          |
| ASIAN-AMERICAN            | 191         | 27592         | 2.61 | 0.6  | 357         | 38296         | 2.76 | 0.5  | 0.57           | 0.16                    | 0.27           |
| AMERICAN INDIAN           | 186         | 30838         | 2.77 | 0.6  | 201         | 20505         | 2.60 | 0.7  | 0.62           | -0.17                   | -0.27          |
| MEXICAN-AMERICAN          | 547         | 71796         | 2.79 | 0.5  | 1845        | 98702         | 2.74 | 0.6  | 0.55           | -0.05                   | -0.10          |
| PUERTO RICAN              | 95          | 9666          | 2.87 | 0.4  | 297         | 17181         | 2.73 | 0.6  | 0.55           | -0.14                   | -0.26          |
| OTHER HISPANIC            | 120         | 18446         | 2.74 | 0.6  | 933         | 63426         | 2.79 | 0.5  | 0.51           | 0.05                    | 0.10           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14784       | 2673380       | 2.77 | 0.5  | 23975       | 2661860       | 2.76 | 0.5  | 0.53           | -0.01                   | -0.02          |
| PRIVATE                   | 66          | 16256         | 2.65 | 0.7  | 862         | 102850        | 2.74 | 0.5  | 0.54           | 0.09                    | 0.17           |
| CATHOLIC                  | 1023        | 234792        | 2.76 | 0.5  | 2649        | 196694        | 2.80 | 0.5  | 0.50           | 0.04                    | 0.08           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3579        | 796283        | 2.76 | 0.5  | 5575        | 684464        | 2.73 | 0.5  | 0.54           | -0.02                   | -0.04          |
| NORTH CENTRAL             | 4528        | 910051        | 2.76 | 0.5  | 7898        | 848580        | 2.77 | 0.5  | 0.52           | 0.00                    | 0.01           |
| SOUTH                     | 5435        | 786183        | 2.81 | 0.5  | 9008        | 892826        | 2.77 | 0.5  | 0.51           | -0.03 *                 | -0.06          |
| WEST                      | 2952        | 520551        | 2.74 | 0.6  | 5005        | 535534        | 2.76 | 0.5  | 0.55           | 0.02                    | 0.04           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5595        | 958147        | 2.77 | 0.5  | 9998        | 1080582       | 2.75 | 0.5  | 0.54           | -0.01                   | -0.03          |
| ACADEMIC                  | 6755        | 1380231       | 2.76 | 0.5  | 10384       | 1122705       | 2.77 | 0.5  | 0.51           | 0.02                    | 0.03           |
| VOCATIONAL                | 4143        | 674389        | 2.79 | 0.5  | 6699        | 714491        | 2.75 | 0.5  | 0.53           | -0.04 *                 | -0.08          |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4512        | 781230        | 2.77 | 0.5  | 6286        | 588784        | 2.74 | 0.5  | 0.54           | -0.03                   | -0.05          |
| SUBURBAN                  | 7893        | 1526548       | 2.76 | 0.5  | 13246       | 1463946       | 2.76 | 0.5  | 0.53           | -0.00                   | -0.00          |
| RURAL                     | 3656        | 635215        | 2.80 | 0.5  | 7954        | 908673        | 2.77 | 0.5  | 0.51           | -0.03                   | -0.06          |

\*SIGNIFICANT AT .05 OR LESS

Table 6-21

IMPORTANCE IN YOUR LIFE OF STEADY WORK  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 16483       | 3010711       | 2.75 | 0.5  | 27331       | 2945918       | 2.82 | 0.4  | 0.45           | 0.07 *                  | 0.17           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 8168        | 1498935       | 2.79 | 0.5  | 12667       | 1375468       | 2.84 | 0.4  | 0.44           | 0.05 *                  | 0.10           |
| FEMALE                    | 8310        | 1510759       | 2.71 | 0.5  | 13893       | 1492723       | 2.81 | 0.4  | 0.46           | 0.11 *                  | 0.23           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4742        | 730595        | 2.81 | 0.4  | 8118        | 782356        | 2.82 | 0.4  | 0.44           | 0.01                    | 0.02           |
| MIDDLE                    | 7843        | 1538703       | 2.76 | 0.5  | 12528       | 1392962       | 2.83 | 0.4  | 0.44           | 0.08 *                  | 0.17           |
| HIGH                      | 3838        | 731015        | 2.67 | 0.5  | 6053        | 708756        | 2.82 | 0.4  | 0.48           | 0.15 *                  | 0.31           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12747       | 2506649       | 2.74 | 0.5  | 19476       | 2319415       | 2.83 | 0.4  | 0.45           | 0.09 *                  | 0.19           |
| BLACK                     | 2065        | 250182        | 2.85 | 0.4  | 3552        | 322572        | 2.84 | 0.4  | 0.42           | -0.01                   | -0.03          |
| ASIAN-AMERICAN            | 190         | 27478         | 2.76 | 0.5  | 357         | 38343         | 2.77 | 0.5  | 0.48           | 0.00                    | 0.01           |
| AMERICAN INDIAN           | 183         | 30327         | 2.74 | 0.5  | 204         | 20809         | 2.78 | 0.5  | 0.51           | 0.04                    | 0.07           |
| MEXICAN-AMERICAN          | 544         | 71290         | 2.85 | 0.4  | 1832        | 97886         | 2.82 | 0.4  | 0.43           | -0.03                   | -0.07          |
| PUERTO RICAN              | 93          | 9479          | 2.78 | 0.4  | 296         | 16998         | 2.81 | 0.5  | 0.45           | 0.03                    | 0.06           |
| OTHER HISPANIC            | 119         | 18383         | 2.75 | 0.5  | 924         | 62386         | 2.78 | 0.5  | 0.47           | 0.04                    | 0.08           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14780       | 2672264       | 2.75 | 0.5  | 23832       | 2647616       | 2.83 | 0.4  | 0.45           | 0.08 *                  | 0.17           |
| PRIVATE                   | 66          | 16256         | 2.48 | 0.7  | 861         | 102571        | 2.76 | 0.5  | 0.50           | 0.28                    | 0.56           |
| CATHOLIC                  | 1017        | 233819        | 2.72 | 0.5  | 2638        | 195730        | 2.83 | 0.4  | 0.44           | 0.11 *                  | 0.24           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3583        | 796959        | 2.72 | 0.5  | 5547        | 681323        | 2.83 | 0.4  | 0.46           | 0.11 *                  | 0.24           |
| NORTH CENTRAL             | 4523        | 909467        | 2.75 | 0.5  | 7850        | 843562        | 2.83 | 0.4  | 0.44           | 0.09 *                  | 0.19           |
| SOUTH                     | 5432        | 785300        | 2.79 | 0.5  | 8950        | 887293        | 2.83 | 0.4  | 0.44           | 0.03 *                  | 0.07           |
| WEST                      | 2945        | 518985        | 2.73 | 0.5  | 4984        | 533740        | 2.80 | 0.5  | 0.48           | 0.07 *                  | 0.15           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5584        | 955370        | 2.76 | 0.5  | 9944        | 1075055       | 2.82 | 0.4  | 0.45           | 0.06 *                  | 0.13           |
| ACADEMIC                  | 6759        | 1381641       | 2.71 | 0.5  | 10336       | 1117735       | 2.82 | 0.4  | 0.46           | 0.11 *                  | 0.24           |
| VOCATIONAL                | 4140        | 673700        | 2.81 | 0.4  | 6653        | 710347        | 2.83 | 0.4  | 0.43           | 0.02                    | 0.05           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4506        | 779145        | 2.76 | 0.5  | 6232        | 583152        | 2.83 | 0.4  | 0.44           | 0.07 *                  | 0.16           |
| SUBURBAN                  | 7887        | 1526524       | 2.73 | 0.5  | 13191       | 1459224       | 2.82 | 0.4  | 0.46           | 0.09 *                  | 0.21           |
| RURAL                     | 3652        | 634792        | 2.79 | 0.5  | 7908        | 903542        | 2.82 | 0.4  | 0.44           | 0.03 *                  | 0.08           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-22

IMPORTANCE IN YOUR LIFE OF BETTER OPPORTUNITIES FOR YOUR CHILDREN  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                           | MLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 16430       | 3002472       | 2.60 | 0.6  | 27311       | 2942560       | 2.61 | 0.6  | 0.60           | 0.01                    | 0.02           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 8141        | 1495145       | 2.60 | 0.6  | 12648       | 1372073       | 2.62 | 0.6  | 0.60           | 0.02                    | 0.03           |
| FEMALE                    | 8284        | 1506310       | 2.61 | 0.6  | 13896       | 1492444       | 2.61 | 0.6  | 0.60           | 0.00                    | 0.00           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4746        | 731733        | 2.75 | 0.5  | 8116        | 782241        | 2.72 | 0.5  | 0.52           | -0.03 *                 | -0.06          |
| MIDDLE                    | 7816        | 1534122       | 2.62 | 0.6  | 12516       | 1390706       | 2.62 | 0.6  | 0.59           | 0.00                    | 0.01           |
| HIGH                      | 3610        | 726533        | 2.42 | 0.7  | 6048        | 708019        | 2.47 | 0.6  | 0.66           | 0.05 *                  | 0.08           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12696       | 2498114       | 2.57 | 0.6  | 19474       | 2318083       | 2.57 | 0.6  | 0.61           | 0.00                    | 0.01           |
| BLACK                     | 2059        | 249783        | 2.86 | 0.4  | 3540        | 321514        | 2.82 | 0.5  | 0.45           | -0.04 *                 | -0.10          |
| ASIAN-AMERICAN            | 189         | 27365         | 2.65 | 0.6  | 354         | 37839         | 2.71 | 0.5  | 0.55           | 0.06                    | 0.10           |
| AMERICAN INDIAN           | 184         | 30573         | 2.74 | 0.6  | 202         | 20619         | 2.60 | 0.6  | 0.60           | -0.14                   | -0.23          |
| MEXICAN-AMERICAN          | 546         | 71587         | 2.82 | 0.4  | 1836        | 97893         | 2.78 | 0.5  | 0.47           | -0.04                   | -0.08          |
| PUERTO RICAN              | 94          | 9578          | 2.84 | 0.4  | 296         | 16996         | 2.83 | 0.5  | 0.44           | -0.01                   | -0.02          |
| OTHER HISPANIC            | 118         | 18251         | 2.78 | 0.5  | 922         | 62875         | 2.69 | 0.6  | 0.54           | -0.09                   | -0.16          |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14730       | 2664714       | 2.60 | 0.6  | 23819       | 2644096       | 2.62 | 0.6  | 0.59           | 0.02                    | 0.03           |
| PRIVATE                   | 65          | 15941         | 2.34 | 0.8  | 854         | 102248        | 2.41 | 0.7  | 0.71           | 0.07                    | 0.10           |
| CATHOLIC                  | 1019        | 233862        | 2.55 | 0.6  | 2638        | 196217        | 2.59 | 0.6  | 0.60           | 0.04                    | 0.07           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3566        | 792657        | 2.56 | 0.6  | 5534        | 679542        | 2.58 | 0.6  | 0.62           | 0.02                    | 0.03           |
| NORTH CENTRAL             | 4506        | 906784        | 2.59 | 0.6  | 7852        | 844235        | 2.57 | 0.6  | 0.60           | -0.02                   | -0.03          |
| SOUTH                     | 5424        | 785024        | 2.70 | 0.6  | 8964        | 888445        | 2.70 | 0.5  | 0.55           | 0.00                    | 0.00           |
| WEST                      | 2934        | 518006        | 2.54 | 0.6  | 4961        | 530339        | 2.57 | 0.6  | 0.63           | 0.03                    | 0.05           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5576        | 955050        | 2.64 | 0.6  | 9942        | 1073769       | 2.63 | 0.6  | 0.59           | -0.01                   | -0.02          |
| ACADEMIC                  | 6726        | 1374550       | 2.53 | 0.6  | 10311       | 1115222       | 2.56 | 0.6  | 0.62           | 0.04 *                  | 0.06           |
| VOCATIONAL                | 4127        | 672569        | 2.70 | 0.5  | 6659        | 710421        | 2.67 | 0.6  | 0.55           | -0.04                   | -0.07          |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4496        | 777778        | 2.65 | 0.6  | 6233        | 582812        | 2.68 | 0.6  | 0.57           | 0.04                    | 0.06           |
| SUBURBAN                  | 7857        | 1520988       | 2.55 | 0.6  | 13158       | 1454743       | 2.58 | 0.6  | 0.62           | 0.03 *                  | 0.05           |
| RURAL                     | 3644        | 633785        | 2.66 | 0.6  | 7920        | 905005        | 2.61 | 0.6  | 0.57           | -0.05 *                 | -0.08          |

\*SIGNIFICANT AT .05 OR LESS

Table 6-23

IMPORTANCE IN YOUR LIFE OF WORKING TO CORRECT SOCIAL AND ECONOMIC INEQUALITIES  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 16466       | 3008658       | 2.06 | 0.7  | 27270       | 2938610       | 1.74 | 0.7  | 0.68           | -0.32 *                 | -0.47          |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 8154        | 1496944       | 1.96 | 0.7  | 12634       | 1371064       | 1.69 | 0.7  | 0.69           | -0.27 *                 | -0.40          |
| FEMALE                    | 8308        | 1510940       | 2.15 | 0.7  | 13885       | 1491213       | 1.77 | 0.7  | 0.67           | -0.38 *                 | -0.57          |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4739        | 730286        | 2.11 | 0.7  | 8113        | 782289        | 1.79 | 0.7  | 0.68           | -0.32 *                 | -0.48          |
| MIDDLE                    | 7839        | 1538397       | 2.03 | 0.7  | 12487       | 1388011       | 1.71 | 0.7  | 0.68           | -0.32 *                 | -0.47          |
| HIGH                      | 3830        | 729969        | 2.07 | 0.7  | 6051        | 707886        | 1.72 | 0.7  | 0.69           | -0.35 *                 | -0.51          |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12735       | 2505190       | 2.02 | 0.7  | 19464       | 2316288       | 1.67 | 0.7  | 0.67           | -0.35 *                 | -0.52          |
| BLACK                     | 2063        | 249972        | 2.37 | 0.7  | 3523        | 319926        | 2.03 | 0.7  | 0.68           | -0.34 *                 | -0.50          |
| ASIAN-AMERICAN            | 190         | 27283         | 2.02 | 0.7  | 355         | 38074         | 1.87 | 0.7  | 0.68           | -0.15                   | -0.23          |
| AMERICAN INDIAN           | 180         | 29933         | 2.11 | 0.7  | 202         | 20657         | 1.86 | 0.6  | 0.66           | -0.25 *                 | -0.39          |
| MEXICAN-AMERICAN          | 542         | 71135         | 2.21 | 0.6  | 1833        | 97754         | 1.90 | 0.7  | 0.67           | -0.31 *                 | -0.47          |
| PUERTO RICAN              | 95          | 9676          | 2.20 | 0.6  | 294         | 17100         | 1.91 | 0.7  | 0.69           | -0.29 *                 | -0.42          |
| OTHER HISPANIC            | 118         | 18249         | 2.05 | 0.7  | 912         | 61724         | 1.85 | 0.7  | 0.70           | -0.19                   | -0.27          |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14755       | 2668562       | 2.05 | 0.7  | 23775       | 2640827       | 1.74 | 0.7  | 0.68           | -0.31 *                 | -0.46          |
| PRIVATE                   | 66          | 16256         | 2.08 | 0.7  | 855         | 101733        | 1.69 | 0.7  | 0.70           | -0.39 *                 | -0.55          |
| CATHOLIC                  | 1022        | 235021        | 2.08 | 0.7  | 2640        | 196051        | 1.69 | 0.7  | 0.66           | -0.39 *                 | -0.59          |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3574        | 795879        | 2.03 | 0.7  | 5541        | 679910        | 1.72 | 0.7  | 0.69           | -0.31 *                 | -0.45          |
| NORTH CENTRAL             | 4515        | 908032        | 2.03 | 0.7  | 7831        | 841818        | 1.68 | 0.7  | 0.67           | -0.36 *                 | -0.53          |
| SOUTH                     | 5432        | 785368        | 2.14 | 0.7  | 8936        | 865771        | 1.80 | 0.7  | 0.68           | -0.34 *                 | -0.49          |
| WEST                      | 2945        | 519378        | 2.01 | 0.7  | 4962        | 531111        | 1.73 | 0.7  | 0.68           | -0.28 *                 | -0.42          |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5584        | 955064        | 2.02 | 0.7  | 9915        | 1071030       | 1.70 | 0.7  | 0.67           | -0.32 *                 | -0.47          |
| ACADEMIC                  | 6753        | 1380876       | 2.10 | 0.7  | 10341       | 1118285       | 1.78 | 0.7  | 0.69           | -0.32 *                 | -0.47          |
| VOCATIONAL                | 4128        | 672416        | 2.02 | 0.7  | 6618        | 706341        | 1.71 | 0.7  | 0.67           | -0.31 *                 | -0.46          |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4593        | 779282        | 2.10 | 0.7  | 6214        | 581513        | 1.80 | 0.7  | 0.69           | -0.29 *                 | -0.42          |
| SUBURBAN                  | 7879        | 1524703       | 2.04 | 0.7  | 13161       | 1454818       | 1.71 | 0.7  | 0.68           | -0.34 *                 | -0.49          |
| RURAL                     | 3652        | 634754        | 2.04 | 0.7  | 7895        | 902278        | 1.73 | 0.7  | 0.67           | -0.31 *                 | -0.46          |

\*SIGNIFICANT AT .05 OR LESS

Table 6-24

IMPORTANCE IN YOUR LIFE OF LOTS OF MONEY  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 16498       | 3013312       | 1.95 | 0.6  | 27440       | 2958572       | 2.21 | 0.6  | 0.63           | 0.25 *                  | 0.40           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 8183        | 1501168       | 2.10 | 0.6  | 12715       | 1381571       | 2.33 | 0.6  | 0.62           | 0.22 *                  | 0.36           |
| FEMALE                    | 8310        | 1511127       | 1.81 | 0.6  | 13945       | 1498039       | 2.09 | 0.6  | 0.60           | 0.28 *                  | 0.47           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4748        | 731283        | 1.99 | 0.6  | 8154        | 786223        | 2.20 | 0.6  | 0.63           | 0.21 *                  | 0.33           |
| MIDDLE                    | 7855        | 1540808       | 1.94 | 0.6  | 12561       | 1396763       | 2.20 | 0.6  | 0.62           | 0.26 *                  | 0.42           |
| HIGH                      | 3837        | 731141        | 1.94 | 0.6  | 6084        | 712588        | 2.21 | 0.6  | 0.63           | 0.27 *                  | 0.43           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12760       | 2509566       | 1.93 | 0.6  | 19544       | 2327886       | 2.18 | 0.6  | 0.62           | 0.25 *                  | 0.40           |
| BLACK                     | 2063        | 249684        | 2.16 | 0.6  | 3571        | 324358        | 2.37 | 0.6  | 0.63           | 0.21 *                  | 0.34           |
| ASIAN-AMERICAN            | 191         | 27581         | 1.98 | 0.6  | 356         | 38224         | 2.33 | 0.6  | 0.61           | 0.35 *                  | 0.57           |
| AMERICAN INDIAN           | 184         | 30573         | 2.09 | 0.7  | 203         | 20981         | 2.23 | 0.6  | 0.65           | 0.14                    | 0.21           |
| MEXICAN-AMERICAN          | 547         | 71924         | 2.03 | 0.6  | 1844        | 98769         | 2.22 | 0.6  | 0.63           | 0.19 *                  | 0.30           |
| PUERTO RICAN              | 92          | 9394          | 1.97 | 0.6  | 298         | 17285         | 2.30 | 0.6  | 0.60           | 0.33 *                  | 0.55           |
| OTHER HISPANIC            | 118         | 17966         | 1.88 | 0.6  | 927         | 62616         | 2.23 | 0.6  | 0.64           | 0.35 *                  | 0.55           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14788       | 2673845       | 1.96 | 0.6  | 23936       | 2659224       | 2.21 | 0.6  | 0.62           | 0.25 *                  | 0.41           |
| PRIVATE                   | 65          | 15963         | 1.71 | 0.6  | 864         | 103264        | 2.07 | 0.7  | 0.68           | 0.36 *                  | 0.54           |
| CATHOLIC                  | 1022        | 234609        | 1.88 | 0.6  | 2640        | 196084        | 2.16 | 0.6  | 0.60           | 0.29 *                  | 0.47           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3579        | 796500        | 1.92 | 0.6  | 5572        | 684693        | 2.22 | 0.6  | 0.63           | 0.30 *                  | 0.48           |
| NORTH CENTRAL             | 4524        | 909243        | 1.95 | 0.6  | 7885        | 847445        | 2.19 | 0.6  | 0.61           | 0.24 *                  | 0.39           |
| SOUTH                     | 5440        | 786561        | 2.00 | 0.6  | 8935        | 890764        | 2.21 | 0.6  | 0.63           | 0.22 *                  | 0.35           |
| WEST                      | 2955        | 521007        | 1.94 | 0.6  | 4998        | 535670        | 2.20 | 0.6  | 0.64           | 0.25 *                  | 0.39           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5599        | 957403        | 1.97 | 0.6  | 9989        | 1079281       | 2.22 | 0.6  | 0.63           | 0.25 *                  | 0.40           |
| ACADEMIC                  | 6765        | 1382369       | 1.92 | 0.6  | 10375       | 1123051       | 2.17 | 0.6  | 0.62           | 0.24 *                  | 0.39           |
| VOCATIONAL                | 4133        | 673237        | 1.99 | 0.6  | 6675        | 712867        | 2.24 | 0.6  | 0.63           | 0.24 *                  | 0.39           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4507        | 778654        | 1.98 | 0.6  | 6270        | 587248        | 2.25 | 0.6  | 0.63           | 0.27 *                  | 0.43           |
| SUBURBAN                  | 7897        | 1528528       | 1.94 | 0.6  | 13228       | 1463723       | 2.21 | 0.6  | 0.62           | 0.27 *                  | 0.44           |
| RURAL                     | 3655        | 635390        | 1.95 | 0.6  | 7942        | 907601        | 2.17 | 0.6  | 0.62           | 0.22 *                  | 0.35           |

\*SIGNIFICANT AT .05 OR LESS



Table 6-25

IMPORTANCE IN YOUR LIFE OF BEING A COMMUNITY LEADER  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                           | MLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 16474       | 3009664       | 1.66 | 0.7  | 27179       | 2932713       | 1.61 | 0.7  | 0.66           | -0.05 *                 | -0.07          |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 8160        | 1497586       | 1.74 | 0.7  | 12595       | 1369329       | 1.69 | 0.7  | 0.68           | -0.05 *                 | -0.07          |
| FEMALE                    | 8309        | 1511061       | 1.57 | 0.6  | 13817       | 1485640       | 1.53 | 0.6  | 0.63           | -0.04 *                 | -0.07          |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4737        | 730644        | 1.72 | 0.7  | 8053        | 777775        | 1.55 | 0.6  | 0.66           | -0.17 *                 | -0.26          |
| MIDDLE                    | 7845        | 1539054       | 1.63 | 0.7  | 12440       | 1384422       | 1.59 | 0.7  | 0.66           | -0.04 *                 | -0.06          |
| HIGH                      | 3833        | 729716        | 1.64 | 0.7  | 6053        | 708520        | 1.70 | 0.7  | 0.67           | 0.05 *                  | 0.08           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12748       | 2507016       | 1.63 | 0.7  | 19407       | 2312300       | 1.58 | 0.6  | 0.65           | -0.05 *                 | -0.08          |
| BLACK                     | 2060        | 249667        | 1.92 | 0.7  | 3502        | 317074        | 1.73 | 0.7  | 0.71           | -0.19 *                 | -0.26          |
| ASIAN-AMERICAN            | 190         | 27517         | 1.57 | 0.6  | 356         | 38294         | 1.75 | 0.7  | 0.68           | 0.18                    | 0.26           |
| AMERICAN INDIAN           | 181         | 29947         | 1.78 | 0.7  | 200         | 20518         | 1.70 | 0.7  | 0.72           | -0.08                   | -0.11          |
| MEXICAN-AMERICAN          | 543         | 71140         | 1.81 | 0.7  | 1820        | 97603         | 1.70 | 0.7  | 0.70           | -0.11                   | -0.15          |
| PUERTO RICAN              | 94          | 9578          | 1.84 | 0.7  | 293         | 16956         | 1.72 | 0.7  | 0.73           | -0.11                   | -0.16          |
| OTHER HISPANIC            | 121         | 18565         | 1.63 | 0.7  | 914         | 62292         | 1.71 | 0.7  | 0.70           | 0.08                    | 0.11           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14772       | 2671674       | 1.65 | 0.7  | 23705       | 2636079       | 1.60 | 0.7  | 0.66           | -0.05 *                 | -0.08          |
| PRIVATE                   | 66          | 16256         | 1.60 | 0.7  | 853         | 101355        | 1.67 | 0.7  | 0.68           | 0.08                    | 0.11           |
| CATHOLIC                  | 1016        | 233204        | 1.66 | 0.7  | 2621        | 195278        | 1.62 | 0.6  | 0.65           | -0.04                   | -0.05          |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3579        | 795981        | 1.55 | 0.6  | 5513        | 677800        | 1.54 | 0.6  | 0.63           | -0.01                   | -0.02          |
| NORTH CENTRAL             | 4519        | 908749        | 1.65 | 0.7  | 7830        | 841853        | 1.58 | 0.6  | 0.65           | -0.07 *                 | -0.11          |
| SOUTH                     | 5433        | 785808        | 1.83 | 0.7  | 8886        | 881441        | 1.71 | 0.7  | 0.70           | -0.12 *                 | -0.17          |
| WEST                      | 2943        | 519125        | 1.56 | 0.6  | 4950        | 531618        | 1.57 | 0.6  | 0.65           | 0.00                    | 0.01           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5587        | 955843        | 1.62 | 0.7  | 9885        | 1069597       | 1.56 | 0.6  | 0.65           | -0.06 *                 | -0.09          |
| ACADEMIC                  | 6754        | 1380254       | 1.70 | 0.7  | 10295       | 1114345       | 1.70 | 0.7  | 0.68           | 0.01                    | 0.01           |
| VOCATIONAL                | 4132        | 673264        | 1.63 | 0.7  | 6601        | 705827        | 1.53 | 0.6  | 0.65           | -0.10 *                 | -0.15          |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4510        | 779212        | 1.66 | 0.7  | 6183        | 579759        | 1.64 | 0.7  | 0.67           | -0.02                   | -0.03          |
| SUBURBAN                  | 7877        | 1525284       | 1.63 | 0.7  | 13141       | 1455463       | 1.57 | 0.6  | 0.66           | -0.05 *                 | -0.08          |
| RURAL                     | 3651        | 634837        | 1.72 | 0.7  | 7855        | 897490        | 1.64 | 0.7  | 0.67           | -0.09 *                 | -0.13          |

\*SIGNIFICANT AT .05 OR LESS

Table 6-26

IMPORTANCE IN YOUR LIFE OF LIVING CLOSE TO PARENTS AND RELATIVES  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                           | MLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 16492       | 3014393       | 1.57 | 0.6  | 27322       | 2946669       | 1.82 | 0.7  | 0.65           | 0.25 *                  | 0.38           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 8170        | 1499806       | 1.55 | 0.6  | 12646       | 1373987       | 1.79 | 0.7  | 0.64           | 0.25 *                  | 0.38           |
| FEMALE                    | 8317        | 1513570       | 1.60 | 0.6  | 13911       | 1495159       | 1.84 | 0.7  | 0.65           | 0.24 *                  | 0.37           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4740        | 730888        | 1.62 | 0.6  | 8108        | 782036        | 1.84 | 0.7  | 0.66           | 0.22 *                  | 0.33           |
| MIDDLE                    | 7861        | 1543064       | 1.59 | 0.6  | 12516       | 1392478       | 1.83 | 0.6  | 0.64           | 0.24 *                  | 0.37           |
| HIGH                      | 3832        | 730191        | 1.48 | 0.6  | 6064        | 710148        | 1.76 | 0.7  | 0.63           | 0.28 *                  | 0.44           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12756       | 2510248       | 1.56 | 0.6  | 19482       | 2320368       | 1.80 | 0.6  | 0.64           | 0.25 *                  | 0.39           |
| BLACK                     | 2059        | 249487        | 1.61 | 0.7  | 3546        | 322733        | 1.79 | 0.7  | 0.67           | 0.18 *                  | 0.28           |
| ASIAN-AMERICAN            | 191         | 27609         | 1.67 | 0.7  | 357         | 38441         | 2.03 | 0.7  | 0.69           | 0.37 *                  | 0.54           |
| AMERICAN INDIAN           | 184         | 30573         | 1.64 | 0.7  | 208         | 20410         | 1.83 | 0.7  | 0.70           | 0.19                    | 0.27           |
| MEXICAN-AMERICAN          | 546         | 71646         | 1.73 | 0.7  | 1836        | 98079         | 1.99 | 0.7  | 0.68           | 0.27 *                  | 0.40           |
| PUERTO RICAN              | 94          | 9578          | 1.78 | 0.7  | 292         | 16668         | 1.97 | 0.7  | 0.70           | 0.19                    | 0.27           |
| OTHER HISPANIC            | 120         | 18394         | 1.84 | 0.7  | 924         | 62593         | 1.93 | 0.7  | 0.68           | 0.09                    | 0.14           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14780       | 2674483       | 1.57 | 0.6  | 23820       | 2647844       | 1.81 | 0.7  | 0.65           | 0.25 *                  | 0.38           |
| PRIVATE                   | 66          | 16256         | 1.57 | 0.7  | 858         | 102670        | 1.79 | 0.7  | 0.67           | 0.23                    | 0.34           |
| CATHOLIC                  | 1023        | 234951        | 1.62 | 0.6  | 2644        | 196155        | 1.88 | 0.6  | 0.64           | 0.26 *                  | 0.41           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3581        | 797307        | 1.58 | 0.6  | 5552        | 682282        | 1.82 | 0.7  | 0.65           | 0.24 *                  | 0.37           |
| NORTH CENTRAL             | 4524        | 909950        | 1.54 | 0.6  | 7852        | 844302        | 1.80 | 0.6  | 0.63           | 0.25 *                  | 0.40           |
| SOUTH                     | 5430        | 785795        | 1.62 | 0.7  | 8943        | 887059        | 1.84 | 0.7  | 0.66           | 0.22 *                  | 0.33           |
| WEST                      | 2957        | 521341        | 1.54 | 0.6  | 4975        | 533026        | 1.81 | 0.7  | 0.64           | 0.27 *                  | 0.42           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5592        | 957727        | 1.59 | 0.6  | 9943        | 1074891       | 1.81 | 0.7  | 0.65           | 0.22 *                  | 0.34           |
| ACADEMIC                  | 6761        | 1382429       | 1.53 | 0.6  | 10343       | 1119428       | 1.80 | 0.6  | 0.63           | 0.27 *                  | 0.42           |
| VOCATIONAL                | 4138        | 673934        | 1.63 | 0.7  | 6642        | 709595        | 1.85 | 0.7  | 0.66           | 0.22 *                  | 0.34           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4514        | 781255        | 1.61 | 0.6  | 6229        | 583721        | 1.85 | 0.7  | 0.66           | 0.24 *                  | 0.37           |
| SUBURBAN                  | 7888        | 1526911       | 1.55 | 0.6  | 13192       | 1459889       | 1.82 | 0.7  | 0.64           | 0.27 *                  | 0.42           |
| RURAL                     | 3656        | 635974        | 1.59 | 0.6  | 7901        | 903060        | 1.80 | 0.7  | 0.65           | 0.21 *                  | 0.32           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-27

IMPORTANCE IN YOUR LIFE OF GETTING AWAY FROM THIS AREA OF THE COUNTRY  
(1=NOT IMPORTANT; 3=VERY IMPORTANT)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 16474       | 3011330       | 1.57 | 0.7  | 27366       | 2949328       | 1.59 | 0.7  | 0.73           | 0.02                    | 0.03           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 8156        | 1497036       | 1.56 | 0.7  | 12679       | 1375593       | 1.60 | 0.7  | 0.73           | 0.04 *                  | 0.05           |
| FEMALE                    | 8313        | 1513277       | 1.59 | 0.7  | 13924       | 1496128       | 1.58 | 0.7  | 0.73           | -0.01                   | -0.01          |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4731        | 729432        | 1.61 | 0.7  | 8129        | 783367        | 1.64 | 0.7  | 0.74           | 0.03                    | 0.04           |
| MIDDLE                    | 7850        | 1541081       | 1.56 | 0.7  | 12537       | 1393520       | 1.58 | 0.7  | 0.73           | 0.02                    | 0.02           |
| HIGH                      | 3835        | 730682        | 1.55 | 0.7  | 6069        | 710491        | 1.55 | 0.7  | 0.72           | -0.00                   | -0.00          |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12755       | 2509355       | 1.56 | 0.7  | 19521       | 2323825       | 1.56 | 0.7  | 0.72           | 0.00                    | 0.00           |
| BLACK                     | 2049        | 248403        | 1.69 | 0.8  | 3537        | 321187        | 1.78 | 0.8  | 0.76           | 0.08 *                  | 0.11           |
| ASIAN-AMERICAN            | 189         | 27173         | 1.54 | 0.7  | 357         | 38257         | 1.42 | 0.7  | 0.66           | -0.13                   | -0.19          |
| AMERICAN INDIAN           | 185         | 30651         | 1.65 | 0.7  | 204         | 20810         | 1.79 | 0.8  | 0.74           | 0.14                    | 0.19           |
| MEXICAN-AMERICAN          | 544         | 71387         | 1.55 | 0.7  | 1835        | 97749         | 1.61 | 0.7  | 0.71           | 0.07                    | 0.09           |
| PUERTO RICAN              | 93          | 9408          | 1.72 | 0.7  | 297         | 17181         | 1.71 | 0.7  | 0.73           | -0.01                   | -0.01          |
| OTHER HISPANIC            | 119         | 18414         | 1.49 | 0.7  | 924         | 62567         | 1.66 | 0.7  | 0.74           | 0.16                    | 0.22           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14769       | 2672242       | 1.58 | 0.7  | 23861       | 2649988       | 1.61 | 0.7  | 0.73           | 0.02                    | 0.03           |
| PRIVATE                   | 66          | 16256         | 1.44 | 0.6  | 860         | 102920        | 1.44 | 0.7  | 0.65           | -0.00                   | -0.00          |
| CATHOLIC                  | 1022        | 234816        | 1.48 | 0.7  | 2645        | 196428        | 1.48 | 0.7  | 0.68           | 0.00                    | 0.00           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3578        | 796960        | 1.60 | 0.7  | 5550        | 681697        | 1.66 | 0.8  | 0.75           | 0.06 *                  | 0.08           |
| NORTH CENTRAL             | 4521        | 909274        | 1.59 | 0.7  | 7869        | 845980        | 1.61 | 0.7  | 0.73           | 0.02                    | 0.02           |
| SOUTH                     | 5422        | 784705        | 1.53 | 0.7  | 8958        | 887846        | 1.57 | 0.7  | 0.72           | 0.04                    | 0.05           |
| WEST                      | 2953        | 520392        | 1.57 | 0.7  | 4989        | 533804        | 1.52 | 0.7  | 0.71           | -0.05                   | -0.06          |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5588        | 956907        | 1.62 | 0.7  | 9966        | 1076354       | 1.63 | 0.7  | 0.74           | 0.01                    | 0.02           |
| ACADEMIC                  | 6758        | 1380911       | 1.54 | 0.7  | 10356       | 1119967       | 1.53 | 0.7  | 0.71           | -0.00                   | -0.00          |
| VOCATIONAL                | 4127        | 673211        | 1.59 | 0.7  | 6645        | 709764        | 1.62 | 0.7  | 0.73           | 0.03                    | 0.04           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4504        | 779536        | 1.57 | 0.7  | 6242        | 584651        | 1.59 | 0.7  | 0.73           | 0.02                    | 0.02           |
| SUBURBAN                  | 7884        | 1526197       | 1.58 | 0.7  | 13198       | 1458740       | 1.57 | 0.7  | 0.72           | -0.01                   | -0.02          |
| RURAL                     | 3650        | 634965        | 1.56 | 0.7  | 7926        | 905937        | 1.64 | 0.7  | 0.74           | 0.08 *                  | 0.11           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-28

Changes in Self-Esteem and Locus Control

|                                                                                                  | <u>Mean</u><br><u>1972</u> | <u>Mean</u><br><u>1980</u> | <u>Differ-</u><br><u>ence</u> | <u>Effect</u><br><u>Size</u> |
|--------------------------------------------------------------------------------------------------|----------------------------|----------------------------|-------------------------------|------------------------------|
| Self-Esteem (Scale: 1 = Disagree to<br>4 = Agree)                                                |                            |                            |                               |                              |
| I feel I am a person of worth.                                                                   | 3.24                       | 3.29                       | 0.05*                         | 0.08                         |
| I am able to do things as well as<br>most other people.                                          | 3.18                       | 3.20                       | 0.11*                         | 0.19                         |
| I take a positive attitude toward<br>myself.                                                     | 3.13                       | 3.25                       | 0.12*                         | 0.18                         |
| On the whole, I am satisfied with<br>myself.                                                     | 2.90                       | 3.04                       | 0.14*                         | 0.20                         |
| Self-Esteem Total                                                                                | 12.45                      | 12.78                      | 0.42                          |                              |
| Means =                                                                                          | 3.11                       | 3.19                       |                               |                              |
| Locus of Control (Scale: 1 = Agree to<br>4 = Disagree)                                           |                            |                            |                               |                              |
| Good luck is more important than<br>hard work.                                                   | 3.30                       | 3.19                       | -0.11*                        | -0.16                        |
| Planning only makes a person unhappy.                                                            | 3.04                       | 3.06                       | 0.02                          | 0.02                         |
| Every time I try to get ahead, something<br>stops me.                                            | 2.92                       | 2.86                       | -0.06*                        | -0.08                        |
| People who accept their condition in<br>life are happier than those who try<br>to change things. | 2.80                       | 2.66                       | -0.14*                        | -0.15                        |
| Locus of Control Total                                                                           | 12.06                      | 11.77                      | -0.29                         |                              |
| Means =                                                                                          | 3.01                       | 2.94                       |                               |                              |

\*Significant at .05 or less

1980, however, scores on three of the four items had decreased, moving the students in the direction of external control but still above the scale midpoint.

Changes toward greater external control were greater for females than for males, for low and middle SES than high SES students, and for students in the general and vocational curricula than for students in the academic curriculum. (See Tables 6-33 to 6-36.)

In summary, students increased in self-esteem between 1972 and 1980. However, locus of control, while still on the internal end of the scale, moved in the direction of greater external control in 1980 than in 1972. In short, between 1972 and 1980 students became more self-confident but less sure of their ability to control the course of their own lives.

Table 6-29

I FEEL I AM A PERSON OF WORTH ON AN EQUAL PLANE WITH OTHERS  
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 15316       | 2800452       | 3.24 | 0.6  | 25845       | 2791949       | 3.29 | 0.6  | 0.59           | 0.05 *                  | 0.08           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 7606        | 1398656       | 3.25 | 0.6  | 12011       | 1306819       | 3.32 | 0.6  | 0.59           | 0.06 *                  | 0.10           |
| FEMALE                    | 7706        | 1401030       | 3.23 | 0.6  | 13185       | 1418416       | 3.27 | 0.6  | 0.59           | 0.04 *                  | 0.06           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4367        | 671742        | 3.23 | 0.6  | 7530        | 726974        | 3.24 | 0.6  | 0.61           | 0.00                    | 0.00           |
| MIDDLE                    | 7284        | 1430442       | 3.23 | 0.6  | 11904       | 1324691       | 3.28 | 0.6  | 0.59           | 0.05 *                  | 0.09           |
| HIGH                      | 3621        | 691042        | 3.29 | 0.6  | 5868        | 686669        | 3.38 | 0.6  | 0.58           | 0.09 *                  | 0.15           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 11888       | 2341331       | 3.23 | 0.6  | 18546       | 2208345       | 3.28 | 0.6  | 0.58           | 0.05 *                  | 0.08           |
| BLACK                     | 1928        | 232091        | 3.38 | 0.7  | 3338        | 303771        | 3.41 | 0.6  | 0.63           | 0.03                    | 0.05           |
| ASIAN-AMERICAN            | 169         | 24562         | 3.11 | 0.6  | 324         | 35469         | 3.29 | 0.6  | 0.62           | 0.18                    | 0.29           |
| AMERICAN INDIAN           | 163         | 26967         | 3.22 | 0.6  | 189         | 19482         | 3.19 | 0.7  | 0.65           | -0.03                   | -0.05          |
| MEXICAN-AMERICAN          | 493         | 65003         | 3.24 | 0.6  | 1698        | 91058         | 3.23 | 0.6  | 0.60           | -0.01                   | -0.02          |
| PUERTO RICAN              | 85          | 8917          | 3.29 | 0.7  | 260         | 15450         | 3.18 | 0.7  | 0.73           | -0.11                   | -0.16          |
| OTHER HISPANIC            | 106         | 16620         | 3.13 | 0.7  | 867         | 58083         | 3.27 | 0.6  | 0.57           | 0.14                    | 0.24           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 13724       | 2481635       | 3.24 | 0.6  | 22493       | 2504108       | 3.29 | 0.6  | 0.59           | 0.05 *                  | 0.08           |
| PRIVATE                   | 59          | 14119         | 3.24 | 0.6  | 826         | 98396         | 3.34 | 0.6  | 0.61           | 0.10                    | 0.16           |
| CATHOLIC                  | 964         | 222883        | 3.26 | 0.6  | 2526        | 189445        | 3.31 | 0.6  | 0.60           | 0.05                    | 0.09           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3300        | 736230        | 3.20 | 0.6  | 5249        | 647538        | 3.28 | 0.6  | 0.59           | 0.08 *                  | 0.14           |
| NORTH CENTRAL             | 4203        | 848269        | 3.22 | 0.6  | 7433        | 798468        | 3.27 | 0.6  | 0.59           | 0.04 *                  | 0.07           |
| SOUTH                     | 5103        | 737030        | 3.29 | 0.6  | 8459        | 838529        | 3.32 | 0.6  | 0.60           | 0.03                    | 0.04           |
| WEST                      | 2710        | 478923        | 3.27 | 0.6  | 4704        | 507415        | 3.30 | 0.6  | 0.59           | 0.03                    | 0.04           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5112        | 871191        | 3.21 | 0.6  | 9325        | 1008373       | 3.24 | 0.6  | 0.59           | 0.03                    | 0.04           |
| ACADEMIC                  | 6382        | 1306066       | 3.29 | 0.6  | 9992        | 1003464       | 3.39 | 0.6  | 0.59           | 0.09 *                  | 0.16           |
| VOCATIONAL                | 3821        | 622892        | 3.19 | 0.6  | 6176        | 661426        | 3.22 | 0.6  | 0.59           | 0.03                    | 0.05           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4197        | 729743        | 3.27 | 0.6  | 5901        | 556133        | 3.32 | 0.6  | 0.61           | 0.05 *                  | 0.09           |
| SUBURBAN                  | 7363        | 1423578       | 3.24 | 0.6  | 12494       | 1383009       | 3.30 | 0.6  | 0.59           | 0.05 *                  | 0.09           |
| RURAL                     | 3390        | 589128        | 3.21 | 0.6  | 7450        | 852888        | 3.26 | 0.6  | 0.59           | 0.04 *                  | 0.07           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-30

I AM ABLE TO DO THINGS AS WELL AS MOST OTHER PEOPLE  
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 15556       | 2040164       | 3.18 | 0.6  | 26175       | 2829460       | 3.29 | 0.6  | 0.58           | 0.11 *                  | 0.19           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 7740        | 1422698       | 3.24 | 0.6  | 12180       | 1326004       | 3.35 | 0.6  | 0.57           | 0.12 *                  | 0.20           |
| FEMALE                    | 7812        | 1424701       | 3.12 | 0.6  | 13326       | 1435012       | 3.24 | 0.6  | 0.58           | 0.11 *                  | 0.20           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4406        | 678554        | 3.16 | 0.6  | 7656        | 739074        | 3.23 | 0.6  | 0.59           | 0.07 *                  | 0.13           |
| MIDDLE                    | 7429        | 1461128       | 3.16 | 0.6  | 12069       | 1344589       | 3.27 | 0.6  | 0.57           | 0.12 *                  | 0.21           |
| HIGH                      | 3670        | 699936        | 3.25 | 0.6  | 5894        | 690313        | 3.38 | 0.6  | 0.57           | 0.13 *                  | 0.24           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12087       | 2381784       | 3.17 | 0.6  | 18800       | 2239281       | 3.28 | 0.6  | 0.57           | 0.11 *                  | 0.20           |
| BLACK                     | 1929        | 233204        | 3.30 | 0.6  | 3336        | 304411        | 3.38 | 0.6  | 0.63           | 0.08 *                  | 0.12           |
| ASIAN-AMERICAN            | 168         | 23732         | 3.12 | 0.6  | 329         | 35914         | 3.34 | 0.6  | 0.58           | 0.22 *                  | 0.39           |
| AMERICAN INDIAN           | 169         | 28130         | 3.16 | 0.7  | 188         | 19154         | 3.20 | 0.6  | 0.62           | 0.04                    | 0.07           |
| MEXICAN-AMERICAN          | 515         | 67732         | 3.20 | 0.6  | 1733        | 93221         | 3.24 | 0.6  | 0.60           | 0.05                    | 0.08           |
| PUERTO RICAN              | 86          | 8848          | 3.28 | 0.7  | 275         | 15798         | 3.19 | 0.7  | 0.73           | -0.09                   | -0.12          |
| OTHER HISPANIC            | 111         | 17113         | 3.20 | 0.6  | 880         | 59325         | 3.30 | 0.6  | 0.61           | 0.09                    | 0.15           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 13947       | 2528110       | 3.18 | 0.6  | 22814       | 2541780       | 3.29 | 0.6  | 0.58           | 0.11 *                  | 0.19           |
| PRIVATE                   | 63          | 14993         | 3.12 | 0.6  | 823         | 98946         | 3.33 | 0.6  | 0.60           | 0.21                    | 0.35           |
| CATHOLIC                  | 966         | 222262        | 3.19 | 0.6  | 2538        | 188735        | 3.29 | 0.6  | 0.59           | 0.10 *                  | 0.16           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3357        | 751776        | 3.14 | 0.6  | 5330        | 657742        | 3.28 | 0.6  | 0.58           | 0.14 *                  | 0.24           |
| NORTH CENTRAL             | 4270        | 859323        | 3.16 | 0.6  | 7526        | 810254        | 3.27 | 0.6  | 0.57           | 0.11 *                  | 0.19           |
| SOUTH                     | 5137        | 742617        | 3.22 | 0.6  | 8537        | 847062        | 3.30 | 0.6  | 0.59           | 0.07 *                  | 0.12           |
| WEST                      | 2792        | 494448        | 3.20 | 0.6  | 4782        | 514401        | 3.32 | 0.6  | 0.57           | 0.12 *                  | 0.22           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5214        | 892139        | 3.14 | 0.6  | 9452        | 1023734       | 3.24 | 0.6  | 0.57           | 0.10 *                  | 0.17           |
| ACADEMIC                  | 6485        | 1324975       | 3.23 | 0.6  | 10044       | 1090398       | 3.38 | 0.6  | 0.58           | 0.14 *                  | 0.25           |
| VOCATIONAL                | 3856        | 630747        | 3.12 | 0.6  | 6312        | 674922        | 3.23 | 0.6  | 0.59           | 0.11 *                  | 0.18           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4285        | 744759        | 3.21 | 0.6  | 5958        | 561741        | 3.33 | 0.6  | 0.60           | 0.12 *                  | 0.20           |
| SUBURBAN                  | 7445        | 1443463       | 3.18 | 0.6  | 12666       | 1403528       | 3.29 | 0.6  | 0.58           | 0.12 *                  | 0.20           |
| RURAL                     | 3444        | 598592        | 3.15 | 0.6  | 7551        | 864192        | 3.26 | 0.6  | 0.57           | 0.11 *                  | 0.19           |

\*SIGNIFICANT AT .05 OR LESS



Table 6-31

I TAKE A POSITIVE ATTITUDE TOWARD MYSELF  
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 14808       | 2712597       | 3.13 | 0.7  | 25980       | 2799578       | 3.25 | 0.6  | 0.65           | 0.12 *                  | 0.18           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 7317        | 1347297       | 3.19 | 0.7  | 12078       | 1311224       | 3.34 | 0.6  | 0.63           | 0.15 *                  | 0.24           |
| FEMALE                    | 7487        | 1364534       | 3.06 | 0.7  | 13210       | 1417984       | 3.16 | 0.7  | 0.66           | 0.09 *                  | 0.14           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4101        | 632748        | 3.13 | 0.7  | 7602        | 730481        | 3.22 | 0.6  | 0.67           | 0.09 *                  | 0.14           |
| MIDDLE                    | 7082        | 1389360       | 3.11 | 0.7  | 11953       | 1328044       | 3.23 | 0.6  | 0.65           | 0.12 *                  | 0.19           |
| HIGH                      | 3578        | 682515        | 3.15 | 0.7  | 5867        | 686428        | 3.29 | 0.6  | 0.65           | 0.14 *                  | 0.21           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 11551       | 2274517       | 3.10 | 0.7  | 18525       | 2204187       | 3.21 | 0.6  | 0.65           | 0.11 *                  | 0.16           |
| BLACK                     | 1855        | 225008        | 3.37 | 0.7  | 3411        | 309097        | 3.51 | 0.6  | 0.64           | 0.14 *                  | 0.22           |
| ASIAN-AMERICAN            | 159         | 22647         | 3.01 | 0.6  | 340         | 36213         | 3.27 | 0.6  | 0.61           | 0.26 *                  | 0.43           |
| AMERICAN INDIAN           | 158         | 26653         | 3.08 | 0.7  | 196         | 19814         | 3.23 | 0.7  | 0.70           | 0.15                    | 0.22           |
| MEXICAN-AMERICAN          | 459         | 61502         | 3.21 | 0.6  | 1711        | 92636         | 3.23 | 0.6  | 0.63           | 0.02                    | 0.03           |
| PUERTO RICAN              | 79          | 8244          | 3.21 | 0.7  | 277         | 16008         | 3.28 | 0.6  | 0.66           | 0.08                    | 0.12           |
| OTHER HISPANIC            | 108         | 16885         | 3.17 | 0.7  | 881         | 58913         | 3.32 | 0.6  | 0.60           | 0.15                    | 0.25           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 13247       | 2399313       | 3.13 | 0.7  | 22626       | 2514594       | 3.25 | 0.6  | 0.65           | 0.12 *                  | 0.18           |
| PRIVATE                   | 61          | 15115         | 3.05 | 0.6  | 824         | 97462         | 3.26 | 0.6  | 0.64           | 0.21                    | 0.33           |
| CATHOLIC                  | 948         | 218672        | 3.09 | 0.7  | 2530        | 187521        | 3.22 | 0.6  | 0.66           | 0.12 *                  | 0.19           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3212        | 716589        | 3.06 | 0.7  | 5252        | 644872        | 3.22 | 0.6  | 0.67           | 0.16 *                  | 0.24           |
| NORTH CENTRAL             | 4093        | 824457        | 3.09 | 0.7  | 7466        | 801589        | 3.21 | 0.6  | 0.65           | 0.11 *                  | 0.17           |
| SOUTH                     | 4841        | 700556        | 3.20 | 0.7  | 8490        | 841279        | 3.30 | 0.6  | 0.65           | 0.10 *                  | 0.16           |
| WEST                      | 2662        | 470995        | 3.17 | 0.7  | 4772        | 511837        | 3.25 | 0.6  | 0.64           | 0.08 *                  | 0.13           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 4866        | 832166        | 3.10 | 0.7  | 9368        | 1009894       | 3.21 | 0.6  | 0.65           | 0.11 *                  | 0.17           |
| ACADEMIC                  | 6324        | 1291562       | 3.16 | 0.7  | 10039       | 1086027       | 3.29 | 0.6  | 0.65           | 0.14 *                  | 0.21           |
| VOCATIONAL                | 3617        | 588567        | 3.09 | 0.7  | 6214        | 664301        | 3.21 | 0.6  | 0.65           | 0.13 *                  | 0.19           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4105        | 712219        | 3.17 | 0.7  | 5976        | 560015        | 3.31 | 0.6  | 0.66           | 0.14 *                  | 0.21           |
| SUBURBAN                  | 7136        | 1384280       | 3.11 | 0.7  | 12558       | 1389267       | 3.24 | 0.6  | 0.65           | 0.13 *                  | 0.19           |
| RURAL                     | 3211        | 558300        | 3.10 | 0.7  | 7446        | 850296        | 3.22 | 0.6  | 0.64           | 0.12 *                  | 0.18           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-32

ON THE WHOLE, I'M SATISFIED WITH MYSELF  
(1=DISAGREE STRONGLY; 4=AGREE STRONGLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 15223       | 2785681       | 2.90 | 0.7  | 26078       | 2810192       | 3.04 | 0.7  | 0.71           | 0.14 *                  | 0.20           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7549        | 1386188       | 2.87 | 0.8  | 12090       | 1313281       | 3.05 | 0.7  | 0.72           | 0.18 *                  | 0.25           |
| FEMALE             | 7670        | 1398728       | 2.93 | 0.7  | 13330       | 1429573       | 3.03 | 0.7  | 0.70           | 0.11 *                  | 0.15           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4348        | 667800        | 2.90 | 0.8  | 7676        | 736826        | 3.00 | 0.7  | 0.74           | 0.10 *                  | 0.13           |
| MIDDLE             | 7219        | 1420398       | 2.90 | 0.7  | 12029       | 1337762       | 3.03 | 0.7  | 0.69           | 0.13 *                  | 0.19           |
| HIGH               | 3606        | 689400        | 2.90 | 0.7  | 5840        | 682299        | 3.10 | 0.7  | 0.70           | 0.20 *                  | 0.29           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 11828       | 2326669       | 2.90 | 0.7  | 18684       | 2221160       | 3.03 | 0.7  | 0.69           | 0.14 *                  | 0.20           |
| BLACK              | 1893        | 229745        | 2.90 | 0.9  | 3355        | 304796        | 3.10 | 0.8  | 0.84           | 0.20 *                  | 0.24           |
| ASIAN-AMERICAN     | 166         | 24174         | 2.87 | 0.7  | 334         | 36310         | 3.00 | 0.7  | 0.68           | 0.13                    | 0.19           |
| AMERICAN INDIAN    | 169         | 27733         | 2.89 | 0.8  | 192         | 19588         | 2.96 | 0.7  | 0.78           | 0.07                    | 0.08           |
| MEXICAN-AMERICAN   | 493         | 65004         | 2.94 | 0.8  | 1733        | 92157         | 3.03 | 0.7  | 0.72           | 0.09                    | 0.13           |
| PUERTO RICAN       | 86          | 8861          | 2.99 | 0.9  | 276         | 15865         | 3.07 | 0.8  | 0.82           | 0.08                    | 0.10           |
| OTHER HISPANIC     | 111         | 17503         | 3.01 | 0.8  | 879         | 58773         | 3.10 | 0.7  | 0.69           | 0.09                    | 0.13           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 13638       | 2470362       | 2.90 | 0.7  | 22714       | 2524554       | 3.04 | 0.7  | 0.71           | 0.14 *                  | 0.20           |
| PRIVATE            | 59          | 14237         | 2.97 | 0.7  | 814         | 96670         | 3.08 | 0.7  | 0.71           | 0.11                    | 0.15           |
| CATHOLIC           | 955         | 219149        | 2.93 | 0.7  | 2550        | 188968        | 3.05 | 0.7  | 0.69           | 0.12 *                  | 0.17           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3313        | 739286        | 2.91 | 0.7  | 5295        | 651196        | 3.03 | 0.7  | 0.70           | 0.12 *                  | 0.18           |
| NORTH CENTRAL      | 4150        | 837622        | 2.85 | 0.7  | 7494        | 805513        | 3.02 | 0.7  | 0.69           | 0.17 *                  | 0.24           |
| SOUTH              | 5052        | 730416        | 2.93 | 0.8  | 8533        | 844575        | 3.06 | 0.7  | 0.74           | 0.13 *                  | 0.18           |
| WEST               | 2708        | 478357        | 2.93 | 0.8  | 4756        | 508909        | 3.05 | 0.7  | 0.71           | 0.12 *                  | 0.17           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5075        | 868250        | 2.88 | 0.8  | 9424        | 1018599       | 3.00 | 0.7  | 0.70           | 0.12 *                  | 0.17           |
| ACADEMIC           | 6342        | 1298832       | 2.90 | 0.7  | 9994        | 1079933       | 3.09 | 0.7  | 0.72           | 0.19 *                  | 0.27           |
| VOCATIONAL         | 3805        | 618296        | 2.93 | 0.7  | 6298        | 672296        | 3.02 | 0.7  | 0.71           | 0.09 *                  | 0.13           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4191        | 727557        | 2.92 | 0.8  | 5947        | 557778        | 3.07 | 0.7  | 0.74           | 0.15 *                  | 0.20           |
| SUBURBAN           | 7288        | 1412000       | 2.90 | 0.7  | 12625       | 1395685       | 3.04 | 0.7  | 0.71           | 0.14 *                  | 0.20           |
| RURAL              | 3373        | 586311        | 2.88 | 0.7  | 7506        | 856730        | 3.03 | 0.7  | 0.69           | 0.15 *                  | 0.21           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-33

GOOD LUCK IS MORE IMPORTANT THAN HARD WORK FOR SUCCESS  
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 15652       | 2862222       | 3.30 | 0.7  | 25749       | 2782175       | 3.19 | 0.7  | 0.71           | -0.11 *                 | -0.16          |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 7668        | 1406585       | 3.25 | 0.7  | 11857       | 1288472       | 3.14 | 0.7  | 0.73           | -0.11 *                 | -0.16          |
| FEMALE                    | 7981        | 1455081       | 3.36 | 0.7  | 13226       | 1425314       | 3.25 | 0.7  | 0.68           | -0.10 *                 | -0.15          |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4487        | 692948        | 3.21 | 0.7  | 7531        | 727511        | 3.10 | 0.8  | 0.76           | -0.11 *                 | -0.15          |
| MIDDLE                    | 7471        | 1466252       | 3.33 | 0.7  | 11890       | 1323412       | 3.21 | 0.7  | 0.68           | -0.12 *                 | -0.18          |
| HIGH                      | 3645        | 694715        | 3.34 | 0.7  | 5799        | 679646        | 3.29 | 0.7  | 0.66           | -0.06 *                 | -0.09          |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12196       | 2397367       | 3.34 | 0.7  | 18510       | 2203419       | 3.24 | 0.7  | 0.67           | -0.09 *                 | -0.14          |
| BLACK                     | 1920        | 232008        | 3.10 | 0.8  | 3237        | 295468        | 2.96 | 0.8  | 0.83           | -0.14 *                 | -0.17          |
| ASIAN-AMERICAN            | 172         | 24769         | 3.22 | 0.7  | 335         | 36173         | 3.14 | 0.7  | 0.72           | -0.09                   | -0.12          |
| AMERICAN INDIAN           | 173         | 28675         | 3.17 | 0.7  | 192         | 19373         | 2.98 | 0.8  | 0.79           | -0.19                   | -0.24          |
| MEXICAN-AMERICAN          | 513         | 67493         | 3.19 | 0.8  | 1704        | 91728         | 3.00 | 0.8  | 0.79           | -0.19 *                 | -0.24          |
| PUERTO RICAN              | 82          | 8575          | 3.10 | 0.7  | 273         | 15864         | 3.00 | 0.8  | 0.76           | -0.10                   | -0.13          |
| OTHER HISPANIC            | 114         | 17576         | 3.13 | 0.8  | 872         | 58728         | 3.02 | 0.8  | 0.78           | -0.11                   | -0.15          |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 14028       | 2539862       | 3.30 | 0.7  | 22434       | 2498067       | 3.18 | 0.7  | 0.71           | -0.12 *                 | -0.16          |
| PRIVATE                   | 65          | 15986         | 3.47 | 0.7  | 805         | 96900         | 3.27 | 0.7  | 0.70           | -0.20                   | -0.28          |
| CATHOLIC                  | 969         | 222104        | 3.37 | 0.7  | 2510        | 187208        | 3.26 | 0.7  | 0.67           | -0.11 *                 | -0.17          |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3382        | 756718        | 3.32 | 0.7  | 5244        | 646114        | 3.20 | 0.7  | 0.70           | -0.12 *                 | -0.17          |
| NORTH CENTRAL             | 4316        | 866280        | 3.30 | 0.7  | 7376        | 795518        | 3.23 | 0.7  | 0.68           | -0.07 *                 | -0.11          |
| SOUTH                     | 5178        | 748243        | 3.29 | 0.7  | 8406        | 834346        | 3.14 | 0.8  | 0.73           | -0.15 *                 | -0.21          |
| WEST                      | 2776        | 490982        | 3.31 | 0.7  | 4723        | 506197        | 3.22 | 0.7  | 0.71           | -0.08 *                 | -0.12          |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5259        | 900149        | 3.24 | 0.7  | 9278        | 1004497       | 3.14 | 0.7  | 0.71           | -0.11 *                 | -0.15          |
| ACADEMIC                  | 6468        | 1322351       | 3.38 | 0.6  | 9922        | 1074079       | 3.31 | 0.7  | 0.66           | -0.07 *                 | -0.11          |
| VOCATIONAL                | 3924        | 639419        | 3.23 | 0.7  | 6195        | 664893        | 3.10 | 0.8  | 0.75           | -0.13 *                 | -0.17          |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4257        | 738134        | 3.30 | 0.7  | 5837        | 547853        | 3.15 | 0.8  | 0.73           | -0.14 *                 | -0.20          |
| SUBURBAN                  | 7523        | 1456060       | 3.31 | 0.7  | 12479       | 1381111       | 3.22 | 0.7  | 0.69           | -0.09 *                 | -0.13          |
| RURAL                     | 3488        | 606319        | 3.30 | 0.7  | 7433        | 853211        | 3.17 | 0.7  | 0.71           | -0.13 *                 | -0.19          |

\*SIGNIFICANT AT .05 OR LESS

Table 6-34

PLANNING ONLY MAKES A PERSON UNHAPPY SINCE PLANS HARDLY EVER WORK OUT ANYWAY  
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 15470       | 2831431       | 3.04 | 0.8  | 25699       | 2776320       | 3.06 | 0.8  | 0.79           | 0.02                    | 0.02           |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 7557        | 1387505       | 2.97 | 0.8  | 11783       | 1281286       | 3.01 | 0.8  | 0.79           | 0.04                    | 0.05           |
| FEMALE                    | 7909        | 1443160       | 3.11 | 0.8  | 13275       | 1429278       | 3.11 | 0.8  | 0.79           | 0.00                    | 0.01           |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4396        | 677728        | 2.89 | 0.8  | 7550        | 728086        | 2.88 | 0.8  | 0.83           | -0.01                   | -0.01          |
| MIDDLE                    | 7397        | 1455213       | 3.05 | 0.8  | 11857       | 1320766       | 3.08 | 0.8  | 0.78           | 0.02                    | 0.03           |
| HIGH                      | 3635        | 691916        | 3.16 | 0.7  | 5786        | 678094        | 3.25 | 0.7  | 0.73           | 0.08 *                  | 0.11           |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 12073       | 2375229       | 3.08 | 0.8  | 18504       | 2204262       | 3.10 | 0.8  | 0.77           | 0.02                    | 0.03           |
| BLACK                     | 1881        | 227391        | 2.83 | 0.9  | 3223        | 292493        | 2.89 | 0.9  | 0.87           | 0.06                    | 0.06           |
| ASIAN-AMERICAN            | 181         | 26080         | 3.08 | 0.8  | 332         | 36097         | 3.14 | 0.8  | 0.79           | 0.06                    | 0.08           |
| AMERICAN INDIAN           | 175         | 28880         | 2.85 | 0.9  | 192         | 19447         | 2.95 | 0.8  | 0.86           | 0.11                    | 0.12           |
| MEXICAN-AMERICAN          | 501         | 65981         | 2.82 | 0.8  | 1714        | 91364         | 2.84 | 0.8  | 0.81           | 0.02                    | 0.02           |
| PUERTO RICAN              | 85          | 8652          | 2.68 | 0.8  | 273         | 15546         | 2.88 | 0.8  | 0.80           | 0.20                    | 0.25           |
| OTHER HISPANIC            | 100         | 15616         | 2.86 | 0.8  | 848         | 56625         | 2.87 | 0.9  | 0.85           | 0.01                    | 0.01           |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 13854       | 2509719       | 3.04 | 0.8  | 22403       | 2494623       | 3.05 | 0.8  | 0.79           | 0.01                    | 0.01           |
| PRIVATE                   | 64          | 15627         | 3.09 | 0.8  | 806         | 96071         | 3.22 | 0.7  | 0.73           | 0.12                    | 0.17           |
| CATHOLIC                  | 976         | 224097        | 3.08 | 0.8  | 2490        | 185626        | 3.13 | 0.7  | 0.75           | 0.04                    | 0.06           |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3339        | 746860        | 3.00 | 0.8  | 5220        | 642042        | 3.03 | 0.8  | 0.80           | 0.03                    | 0.04           |
| NORTH CENTRAL             | 4258        | 855717        | 3.06 | 0.8  | 7393        | 797902        | 3.08 | 0.8  | 0.77           | 0.02                    | 0.03           |
| SOUTH                     | 5101        | 738093        | 3.02 | 0.8  | 8359        | 829605        | 3.00 | 0.8  | 0.82           | -0.02                   | -0.03          |
| WEST                      | 2772        | 490772        | 3.09 | 0.8  | 4727        | 506771        | 3.15 | 0.8  | 0.77           | 0.06                    | 0.08           |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 5187        | 889815        | 2.95 | 0.8  | 9266        | 1001187       | 2.97 | 0.8  | 0.80           | 0.02                    | 0.03           |
| ACADEMIC                  | 6404        | 1309442       | 3.17 | 0.7  | 9879        | 1072654       | 3.23 | 0.7  | 0.74           | 0.06 *                  | 0.08           |
| VOCATIONAL                | 3878        | 631872        | 2.90 | 0.8  | 6194        | 662682        | 2.93 | 0.8  | 0.83           | 0.03                    | 0.04           |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4227        | 732320        | 3.05 | 0.8  | 5848        | 551031        | 3.02 | 0.8  | 0.82           | -0.03                   | -0.03          |
| SUBURBAN                  | 7414        | 1437545       | 3.05 | 0.8  | 12430       | 1376717       | 3.09 | 0.8  | 0.78           | 0.04 *                  | 0.05           |
| RURAL                     | 3455        | 600968        | 3.03 | 0.8  | 7421        | 848572        | 3.04 | 0.8  | 0.79           | 0.01                    | 0.01           |

\*SIGNIFICANT AT .05 OR LESS

Table 6-35

EVERY TIME I TRY TO GET AHEAD, SOMETHING OR SOMEBODY STOPS ME  
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

|                           | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|---------------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                           | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| <b>TOTAL</b>              | 15017       | 2745586       | 2.92 | 0.7  | 25163       | 2716731       | 2.86 | 0.7  | 0.72           | -0.06 *                 | -0.08          |
| <b>SEX:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE                      | 7362        | 1352359       | 2.84 | 0.7  | 11596       | 1260280       | 2.81 | 0.7  | 0.73           | -0.03                   | -0.04          |
| FEMALE                    | 7651        | 1392462       | 2.99 | 0.7  | 12939       | 1392621       | 2.90 | 0.7  | 0.69           | -0.08 *                 | -0.12          |
| <b>SES:</b>               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                       | 4269        | 657310        | 2.75 | 0.7  | 7386        | 711515        | 2.69 | 0.8  | 0.75           | -0.07 *                 | -0.09          |
| MIDDLE                    | 7162        | 1404285       | 2.92 | 0.7  | 11601       | 1292252       | 2.86 | 0.7  | 0.70           | -0.06 *                 | -0.09          |
| HIGH                      | 3544        | 677157        | 3.06 | 0.6  | 5664        | 662532        | 3.06 | 0.7  | 0.66           | -0.00                   | -0.00          |
| <b>RACE:</b>              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE                     | 11683       | 2296381       | 2.95 | 0.7  | 18057       | 2152527       | 2.89 | 0.7  | 0.69           | -0.06 *                 | -0.08          |
| BLACK                     | 1846        | 223168        | 2.74 | 0.8  | 3214        | 289883        | 2.70 | 0.8  | 0.82           | -0.03                   | -0.04          |
| ASIAN-AMERICAN            | 163         | 23549         | 2.91 | 0.8  | 326         | 35680         | 2.83 | 0.8  | 0.78           | -0.08                   | -0.11          |
| AMERICAN INDIAN           | 164         | 27286         | 2.70 | 0.8  | 187         | 18750         | 2.63 | 0.7  | 0.79           | -0.07                   | -0.09          |
| MEXICAN-AMERICAN          | 505         | 66762         | 2.74 | 0.7  | 1667        | 88913         | 2.77 | 0.7  | 0.73           | 0.03                    | 0.04           |
| PUERTO RICAN              | 79          | 8174          | 2.65 | 0.8  | 270         | 15145         | 2.71 | 0.7  | 0.77           | 0.07                    | 0.09           |
| OTHER HISPANIC            | 106         | 16411         | 2.95 | 0.7  | 848         | 57134         | 2.74 | 0.8  | 0.76           | -0.21                   | -0.27          |
| <b>SCHOOL TYPE:</b>       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC                    | 13451       | 2433444       | 2.91 | 0.7  | 21926       | 2440326       | 2.85 | 0.7  | 0.72           | -0.07 *                 | -0.09          |
| PRIVATE                   | 62          | 15251         | 3.08 | 0.8  | 783         | 93284         | 3.01 | 0.7  | 0.72           | -0.07                   | -0.10          |
| CATHOLIC                  | 941         | 216036        | 2.98 | 0.7  | 2454        | 183121        | 2.95 | 0.7  | 0.68           | -0.03                   | -0.05          |
| <b>GEOGRAPHIC REGION:</b> |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST                 | 3252        | 725437        | 2.96 | 0.7  | 5135        | 631351        | 2.90 | 0.7  | 0.71           | -0.06 *                 | -0.08          |
| NORTH CENTRAL             | 4140        | 829031        | 2.89 | 0.7  | 7209        | 777248        | 2.85 | 0.7  | 0.70           | -0.05                   | -0.07          |
| SOUTH                     | 4933        | 713591        | 2.87 | 0.7  | 8208        | 811098        | 2.80 | 0.7  | 0.74           | -0.07 *                 | -0.10          |
| WEST                      | 2692        | 477528        | 2.95 | 0.7  | 4611        | 497035        | 2.92 | 0.7  | 0.70           | -0.04                   | -0.05          |
| <b>CURRICULUM:</b>        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL                   | 4987        | 853575        | 2.81 | 0.7  | 9069        | 980741        | 2.78 | 0.7  | 0.72           | -0.03                   | -0.04          |
| ACADEMIC                  | 6249        | 1277974       | 3.04 | 0.7  | 9699        | 1051863       | 3.02 | 0.7  | 0.67           | -0.02                   | -0.03          |
| VOCATIONAL                | 3781        | 614038        | 2.80 | 0.7  | 6055        | 647116        | 2.72 | 0.8  | 0.75           | -0.08 *                 | -0.11          |
| <b>COMMUNITY TYPE:</b>    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN                     | 4118        | 710736        | 2.93 | 0.7  | 5751        | 539017        | 2.86 | 0.8  | 0.74           | -0.07 *                 | -0.09          |
| SUBURBAN                  | 7231        | 1402141       | 2.94 | 0.7  | 12194       | 1350614       | 2.89 | 0.7  | 0.70           | -0.05 *                 | -0.07          |
| RURAL                     | 3308        | 574503        | 2.85 | 0.7  | 7218        | 827100        | 2.80 | 0.7  | 0.71           | -0.04                   | -0.06          |

\*SIGNIFICANT AT .05 OR LESS

Table 6-36

PEOPLE WHO ACCEPT THEIR CONDITION IN LIFE ARE HAPPIER THAN THOSE WHO TRY TO CHANGE THINGS  
(1=AGREE STRONGLY; 4=DISAGREE STRONGLY)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 15041       | 2756993       | 2.80 | 0.9  | 24643       | 2662116       | 2.66 | 0.9  | 0.91           | -0.14 *                 | -0.15          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 7359        | 1356289       | 2.79 | 0.9  | 11355       | 1234816       | 2.67 | 0.9  | 0.90           | -0.13 *                 | -0.14          |
| FEMALE             | 7678        | 1399938       | 2.80 | 0.9  | 12682       | 1365149       | 2.66 | 0.9  | 0.92           | -0.14 *                 | -0.15          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4295        | 664901        | 2.61 | 0.9  | 7266        | 700840        | 2.47 | 0.9  | 0.91           | -0.14 *                 | -0.16          |
| MIDDLE             | 7177        | 1411715       | 2.80 | 0.9  | 11384       | 1265875       | 2.65 | 0.9  | 0.91           | -0.14 *                 | -0.16          |
| HIGH               | 3525        | 673433        | 2.97 | 0.9  | 5511        | 647048        | 2.89 | 0.9  | 0.87           | -0.09 *                 | -0.10          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 11751       | 2313688       | 2.83 | 0.9  | 17708       | 2108560       | 2.70 | 0.9  | 0.90           | -0.13 *                 | -0.15          |
| BLACK              | 1803        | 217684        | 2.63 | 1.0  | 3107        | 284013        | 2.51 | 1.0  | 0.97           | -0.12 *                 | -0.12          |
| ASIAN-AMERICAN     | 165         | 23796         | 2.69 | 0.9  | 312         | 33422         | 2.52 | 0.9  | 0.90           | -0.17                   | -0.19          |
| AMERICAN INDIAN    | 171         | 28561         | 2.41 | 0.9  | 180         | 18524         | 2.51 | 0.8  | 0.89           | 0.10                    | 0.11           |
| MEXICAN-AMERICAN   | 489         | 64818         | 2.57 | 0.9  | 1647        | 87866         | 2.48 | 0.9  | 0.87           | -0.10                   | -0.11          |
| PUERTO RICAN       | 84          | 8475          | 2.47 | 1.0  | 261         | 15020         | 2.59 | 0.9  | 0.96           | 0.13                    | 0.13           |
| OTHER HISPANIC     | 107         | 16153         | 2.70 | 1.0  | 839         | 56384         | 2.49 | 0.9  | 0.90           | -0.21                   | -0.23          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 13464       | 2441235       | 2.79 | 0.9  | 21488       | 2390731       | 2.64 | 0.9  | 0.91           | -0.15 *                 | -0.16          |
| PRIVATE            | 63          | 15660         | 2.84 | 1.0  | 781         | 94690         | 2.82 | 0.9  | 0.92           | -0.03                   | -0.03          |
| CATHOLIC           | 953         | 219709        | 2.94 | 0.9  | 2374        | 176695        | 2.79 | 0.9  | 0.89           | -0.15 *                 | -0.17          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3250        | 726530        | 2.84 | 0.9  | 4996        | 619195        | 2.72 | 0.9  | 0.90           | -0.13 *                 | -0.14          |
| NORTH CENTRAL      | 4179        | 840298        | 2.82 | 0.9  | 7043        | 756979        | 2.66 | 0.9  | 0.89           | -0.16 *                 | -0.18          |
| SOUTH              | 4964        | 721911        | 2.71 | 1.0  | 8103        | 802705        | 2.57 | 0.9  | 0.94           | -0.14 *                 | -0.15          |
| WEST               | 2648        | 468254        | 2.82 | 0.9  | 4501        | 483237        | 2.73 | 0.9  | 0.89           | -0.09 *                 | -0.10          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5038        | 865103        | 2.68 | 0.9  | 8898        | 961363        | 2.56 | 0.9  | 0.90           | -0.12 *                 | -0.13          |
| ACADEMIC           | 6228        | 1277112       | 2.98 | 0.9  | 9456        | 1025593       | 2.87 | 0.9  | 0.88           | -0.10 *                 | -0.12          |
| VOCATIONAL         | 3774        | 614474        | 2.58 | 0.9  | 5955        | 638917        | 2.47 | 0.9  | 0.91           | -0.11 *                 | -0.12          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4120        | 716608        | 2.82 | 0.9  | 5560        | 522852        | 2.64 | 0.9  | 0.92           | -0.18 *                 | -0.19          |
| SUBURBAN           | 7216        | 1400307       | 2.83 | 0.9  | 11906       | 1318687       | 2.71 | 0.9  | 0.90           | -0.13 *                 | -0.14          |
| RURAL              | 3342        | 581875        | 2.67 | 0.9  | 7177        | 820578        | 2.59 | 0.9  | 0.91           | -0.08 *                 | -0.09          |

\*SIGNIFICANT AT .05 OR LESS



## I. TIME SPENT ON HOMEWORK

The students also indicated on the questionnaires the amount of time they spent each week doing homework. The scale was from 1 = 0 to 5 hours a week to 3 = more than 10 hours a week.

The amount of homework done showed a decrease, with small effect size, from 1972 to 1980. As can be seen in Table 6-37, the mean went from 1.41 in 1972 to 1.31 in 1980, representing a decline from about 4.55 hours of homework per week in 1972 to 4.05 hours of homework per week in 1980.

Females showed a greater decrease in amount of homework than males, although the effect size was small. There was no decrease in the amount of homework done by students from high SES backgrounds, but the effect size for low and middle SES students indicates a small but significant decrease. White, Other Hispanic, and Black students were the racial/ethnic groups with significant decreases in the amount of homework done; there was a very slight but not significant increase in the amount of homework done by Asian-American students. Students in public schools and those in the general and vocational curricula also had homework decreases of moderate effect size. Students from the South and those from rural communities showed moderate decreases in the amount of homework.

Examination of the interaction between sex and curriculum type showed that females in the general and vocational curricula had small decreases in the amount of homework done. The cross-tabulations by socioeconomic status and race showed moderate decreases for all low SES students and moderate decreases for White and Black middle SES students. There were also moderate decreases in the amount of homework done by low and middle SES students in public schools. The interactions between SES and region showed moderate decreases in homework for low SES students in all regions but the West, a moderate decrease for middle SES students from the South, and small decreases for middle SES students from all other regions. There were small but not significant increases in the amount of homework done by high SES students in the Northeast and the West. There was a moderate decrease in the homework done by low and middle SES students from suburban and rural communities and small decreases for low and middle SES students in urban communities. High SES students from rural communities showed a very slight nonsignificant increase in the amount of homework done. Similar results can be seen in the interaction of SES and curriculum. Low SES students in all curricula and middle SES students in the general and vocational curricula showed a homework decrease with a moderate effect size. There was a small, nonsignificant increase in the amount of homework done by high SES students in the academic curriculum.

In sum, although the amount of homework done by students showed a small decrease between 1972 and 1980, this decrease varied across groups. It was greatest among low SES students, students in the South, and females in the general or vocational curriculum. The effect that decreasing homework has on test scores will be explored in the relational analysis.

Table 6-37

TIME PER WEEK SPENT ON HOMEWORK  
(1=0-5 HOURS; 3=MORE THAN 10 HOURS)

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 16602       | 3028771       | 1.41 | 0.6  | 28051       | 3020945       | 1.31 | 0.6  | 0.59           | -0.10 *                 | -0.17          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 8230        | 1508450       | 1.30 | 0.5  | 12846       | 1393588       | 1.25 | 0.5  | 0.54           | -0.05 *                 | -0.09          |
| FEMALE             | 8368        | 1519556       | 1.51 | 0.6  | 14063       | 1510853       | 1.37 | 0.6  | 0.62           | -0.15 *                 | -0.24          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 4801        | 738100        | 1.38 | 0.6  | 8357        | 806239        | 1.23 | 0.5  | 0.54           | -0.15 *                 | -0.29          |
| MIDDLE             | 7895        | 1548609       | 1.38 | 0.6  | 12758       | 1418705       | 1.27 | 0.5  | 0.56           | -0.11 *                 | -0.20          |
| HIGH               | 3844        | 731726        | 1.48 | 0.6  | 6150        | 719551        | 1.48 | 0.7  | 0.68           | -0.00                   | -0.00          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 12804       | 2517985       | 1.40 | 0.6  | 19763       | 2353204       | 1.31 | 0.6  | 0.59           | -0.09 *                 | -0.16          |
| BLACK              | 2111        | 254667        | 1.45 | 0.6  | 3748        | 341773        | 1.31 | 0.6  | 0.59           | -0.15 *                 | -0.25          |
| ASIAN-AMERICAN     | 192         | 27629         | 1.71 | 0.8  | 363         | 39273         | 1.74 | 0.8  | 0.79           | 0.03                    | 0.04           |
| AMERICAN INDIAN    | 186         | 30947         | 1.34 | 0.6  | 214         | 21978         | 1.24 | 0.5  | 0.55           | -0.10                   | -0.17          |
| MEXICAN-AMERICAN   | 551         | 72506         | 1.32 | 0.5  | 1881        | 101390        | 1.24 | 0.5  | 0.52           | -0.08                   | -0.16          |
| PUERTO RICAN       | 95          | 9684          | 1.48 | 0.6  | 305         | 17986         | 1.30 | 0.6  | 0.59           | -0.19                   | -0.32          |
| OTHER HISPANIC     | 121         | 18672         | 1.46 | 0.6  | 968         | 66590         | 1.23 | 0.5  | 0.54           | -0.23 *                 | -0.43          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 14884       | 2687839       | 1.39 | 0.6  | 24508       | 2718145       | 1.28 | 0.6  | 0.57           | -0.11 *                 | -0.20          |
| PRIVATE            | 66          | 16256         | 1.63 | 0.7  | 866         | 103557        | 1.66 | 0.8  | 0.78           | 0.03                    | 0.04           |
| CATHOLIC           | 1026        | 235579        | 1.54 | 0.6  | 2677        | 199243        | 1.47 | 0.7  | 0.66           | -0.07                   | -0.10          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 3597        | 799732        | 1.44 | 0.6  | 5653        | 692380        | 1.38 | 0.6  | 0.63           | -0.06 *                 | -0.10          |
| NORTH CENTRAL      | 4553        | 914850        | 1.40 | 0.6  | 8053        | 864586        | 1.31 | 0.6  | 0.58           | -0.09 *                 | -0.15          |
| SOUTH              | 5485        | 792387        | 1.42 | 0.6  | 9244        | 917812        | 1.26 | 0.5  | 0.56           | -0.16 *                 | -0.29          |
| WEST               | 2967        | 521803        | 1.35 | 0.6  | 5101        | 546166        | 1.30 | 0.6  | 0.58           | -0.05 *                 | -0.08          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 5636        | 961920        | 1.27 | 0.5  | 10233       | 1106102       | 1.17 | 0.4  | 0.46           | -0.10 *                 | -0.22          |
| ACADEMIC           | 6790        | 1386730       | 1.55 | 0.7  | 10495       | 1134561       | 1.53 | 0.7  | 0.69           | -0.02                   | -0.03          |
| VOCATIONAL         | 4175        | 679819        | 1.31 | 0.5  | 6902        | 735086        | 1.18 | 0.4  | 0.47           | -0.13 *                 | -0.27          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 4547        | 784745        | 1.42 | 0.6  | 6461        | 604459        | 1.33 | 0.6  | 0.60           | -0.09 *                 | -0.14          |
| SUBURBAN           | 7924        | 1533221       | 1.41 | 0.6  | 13494       | 1492707       | 1.32 | 0.6  | 0.60           | -0.09 *                 | -0.15          |
| RURAL              | 3673        | 637907        | 1.39 | 0.6  | 8096        | 923780        | 1.27 | 0.5  | 0.55           | -0.12 *                 | -0.23          |

\*SIGNIFICANT AT .05 OR LESS

# J. EXTRACURRICULAR ACTIVITIES

One factor that might affect the amount of time high school students spend on homework is the amount of time they spend on other activities, both in-school extracurricular activities and other out-of-school activities. The student questionnaire provides a clue to how students use their time by asking whether or not the student participated in each of nine extracurricular activities. Table 6-38 shows the results in summary form. There were minor changes between 1972 and 1980 in the questions about extracurricular activities. For example, all athletic teams were combined in 1972 but, in 1980, varsity teams were separated from other athletic teams. These changes may have created minor differences in the responses.

Table 6-38

## Percentage of Students Participating in Extracurricular Activities

|                            | <u>1972</u> | <u>1980</u> | <u>Difference</u> |
|----------------------------|-------------|-------------|-------------------|
| Athletics                  | 44.9%       | 51.8%       | 6.9*              |
| Debating and/or Music      | 33.1        | 36.4        | 3.3*              |
| Subject Matter Clubs       | 25.6        | 23.9        | -1.8*             |
| Vocational Education Clubs | 22.3        | 23.2        | 0.9               |
| Newspaper and/or Yearbook  | 20.2        | 19.7        | -0.5              |
| Student Government         | 19.4        | 18.3        | -1.1*             |
| Hobby Clubs                | 18.7        | 22.9        | 4.1*              |
| Cheerleading               | 17.3        | 15.0        | -2.3*             |
| Honorary Clubs             | 14.4        | 16.8        | 2.4*              |

\*Significant at .05 or less

As can be seen, athletics was the most popular extracurricular activity involving 44.9 percent of the students in 1972 and 51.8 percent in 1980. Thus, the percentage of students participating in athletics increased 6.9 percent in this period. The change in athletics participation rates was higher for females than for males, but the proportion of males taking part in athletics continues to exceed that of females. (See Table 6-39.) Participation in athletics increased more for high than for low SES students, thus adding to the already existing differential participation rates in these groups. Asian-American, American Indian, and Mexican-American students showed larger increases than did Whites, Blacks, or Puerto Ricans. Non-Catholic private school students showed a greater increase than public school students while there was a small decrease in athletic participation rates for Catholic school students. The increase was lower for academic curriculum students than for those in other curricula.

Table 6-39  
PERCENTAGE PARTICIPATING IN ATHLETICS

|                    | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL              | 16453       | 3006842       | 44.9    | 27779       | 2993578       | 51.8    | 6.9 *                   |
| SEX:               |             |               |         |             |               |         |                         |
| MALE               | 8186        | 1501415       | 58.2    | 12774       | 1387309       | 64.0    | 5.8 *                   |
| FEMALE             | 8262        | 1504410       | 31.7    | 13949       | 1498306       | 40.6    | 9.0 *                   |
| SES:               |             |               |         |             |               |         |                         |
| LOW                | 4731        | 728992        | 38.7    | 8281        | 790574        | 43.2    | 4.5 *                   |
| MIDDLE             | 7831        | 1538384       | 44.5    | 12654       | 1407505       | 52.1    | 7.6 *                   |
| HIGH               | 3830        | 729121        | 51.7    | 6124        | 716791        | 61.7    | 9.9 *                   |
| RACE:              |             |               |         |             |               |         |                         |
| WHITE              | 12718       | 2502673       | 45.1    | 19646       | 2340439       | 51.6    | 6.5 *                   |
| BLACK              | 2058        | 249083        | 49.6    | 3669        | 334311        | 54.5    | 4.8 *                   |
| ASIAN-AMERICAN     | 190         | 27464         | 36.0    | 358         | 38584         | 48.8    | 12.8 *                  |
| AMERICAN INDIAN    | 186         | 31153         | 43.6    | 217         | 22254         | 62.2    | 18.6 *                  |
| MEXICAN-AMERICAN   | 545         | 71623         | 38.6    | 1864        | 99840         | 49.6    | 11.0 *                  |
| PUERTO RICAN       | 95          | 9659          | 41.1    | 300         | 17525         | 47.9    | 6.8                     |
| OTHER HISPANIC     | 120         | 18471         | 36.7    | 955         | 65391         | 49.5    | 12.8 *                  |
| SCHOOL TYPE:       |             |               |         |             |               |         |                         |
| PUBLIC             | 14750       | 2669209       | 43.6    | 24241       | 2690539       | 50.6    | 7.1 *                   |
| PRIVATE            | 65          | 15919         | 57.2    | 864         | 103673        | 73.1    | 16.0 *                  |
| CATHOLIC           | 1019        | 233649        | 58.1    | 2674        | 199366        | 57.1    | -1.1                    |
| GEOGRAPHIC REGION: |             |               |         |             |               |         |                         |
| NORTHEAST          | 3582        | 797729        | 47.2    | 5608        | 687463        | 54.5    | 7.3 *                   |
| NORTH CENTRAL      | 4518        | 907712        | 46.7    | 7976        | 858396        | 52.8    | 6.1 *                   |
| SOUTH              | 5402        | 781336        | 42.2    | 9130        | 906210        | 48.2    | 6.0 *                   |
| WEST               | 2951        | 520064        | 42.3    | 5065        | 541511        | 52.9    | 10.6 *                  |
| CURRICULUM:        |             |               |         |             |               |         |                         |
| GENERAL            | 5591        | 955628        | 41.0    | 10142       | 1096489       | 49.9    | 8.9 *                   |
| ACADEMIC           | 6744        | 1379024       | 53.4    | 10449       | 1130050       | 60.1    | 6.7 *                   |
| VOCATIONAL         | 4117        | 671887        | 32.9    | 6782        | 723242        | 42.4    | 9.5 *                   |
| COMMUNITY TYPE:    |             |               |         |             |               |         |                         |
| URBAN              | 4496        | 776847        | 43.0    | 6367        | 596028        | 48.2    | 5.2 *                   |
| SUBURBAN           | 7886        | 1527429       | 44.6    | 13383       | 1481555       | 52.6    | 8.0 *                   |
| RURAL              | 3627        | 631401        | 48.6    | 8029        | 915995        | 52.9    | 4.3 *                   |

\*SIGNIFICANT AT .05 OR LESS

Debating and musical activities, such as band, chorus or orchestra, were combined in the second most frequent form of extracurricular participation. There was a slight increase in participation between 1972 and 1980. This increase was greater for females than males, greater for high than for low SES students, and greater for Asian-American, American Indian, and Puerto Rican students than for other students. (See Table 6-40.) The change in participation rate varied little across curricula.

Subject matter clubs, the third most frequent type of extracurricular activities, showed a small but significant decrease in participation rates between 1972 and 1980. This suggests that the 1980 students had less opportunity to acquire additional knowledge through non-formal learning in a subject matter club than did the 1972 students. As shown in Table 6-41, the decrease was greater for females than for males. Although students from the White, Black, and Other Hispanic racial/ethnic groups showed decreased participation in subject matter clubs, participation increased for other minority groups. Participation in subject matter clubs declined more in Catholic schools than in public schools while non-Catholic private schools showed an increase.

Participation rates in vocational education clubs and in school newspapers and/or yearbooks were relatively stable between 1972 and 1980. There was a rise in participation in vocational clubs for males and a decline for females. (See Table 6-42.) There was a decrease in participation in vocational clubs for students in the academic and general curricula and an increase for students in the vocational curriculum. This suggests that vocational curriculum students are using these clubs as a way to increase their knowledge of a vocational field, while students in other curricula see the content of these vocational clubs as less relevant. In newspaper and yearbook activities, males showed a slight increase while female participation declined. Participation in this activity also decreased for low and middle SES students and for students in the nonacademic curricula; participation in these writing-related extracurricular activities increased among high SES students and among students in the academic curriculum. These findings, presented in Table 6-43, suggest that college-bound students may be using writing-related extracurricular activities to enhance their writing skills.

Participation in student government decreased slightly but significantly. This was due primarily to a decrease in the participation of male students, a decrease in the participation of students not enrolled in the academic curriculum, and a decrease in the participation of students from suburban schools. (See Table 6-44.)

Participation in hobby clubs, however, showed an increase. The increase was greater for females than for males. There is very little variation in the participation rates in these clubs across SES groups or across school curricula. (See Table 6-45.)

Table 6-40  
PERCENTAGE PARTICIPATING IN DEBATING AND/OR MUSIC

|                    | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL              | 16202       | 2962931       | 33.1    | 27596       | 2972184       | 36.4    | 3.3 *                   |
| SEX:               |             |               |         |             |               |         |                         |
| MALE               | 7987        | 1466013       | 26.8    | 12645       | 1373401       | 28.4    | 1.7                     |
| FEMALE             | 8210        | 1495901       | 39.2    | 13924       | 1495066       | 43.9    | 4.8 *                   |
| SES:               |             |               |         |             |               |         |                         |
| LOW                | 4639        | 715224        | 30.1    | 8221        | 792425        | 31.1    | 1.0                     |
| MIDDLE             | 7703        | 1513815       | 32.1    | 12598       | 1400831       | 35.8    | 3.8 *                   |
| HIGH               | 3802        | 723962        | 38.0    | 6081        | 711065        | 43.9    | 5.8 *                   |
| RACE:              |             |               |         |             |               |         |                         |
| WHITE              | 12566       | 2472337       | 32.8    | 19556       | 2327724       | 35.8    | 3.0 *                   |
| BLACK              | 1999        | 241621        | 40.8    | 3621        | 330035        | 43.3    | 2.4                     |
| ASIAN-AMERICAN     | 189         | 27303         | 21.9    | 357         | 38447         | 36.6    | 14.7 *                  |
| AMERICAN INDIAN    | 183         | 30862         | 23.0    | 213         | 21892         | 37.0    | 13.9 *                  |
| MEXICAN-AMERICAN   | 528         | 69002         | 27.1    | 1852        | 98643         | 29.9    | 2.9                     |
| PUERTO RICAN       | 92          | 9232          | 30.2    | 297         | 17269         | 38.6    | 8.4                     |
| OTHER HISPANIC     | 118         | 18011         | 26.9    | 939         | 64410         | 30.8    | 3.9                     |
| SCHOOL TYPE:       |             |               |         |             |               |         |                         |
| PUBLIC             | 14530       | 2630747       | 33.2    | 24080       | 2671586       | 35.9    | 2.8 *                   |
| PRIVATE            | 66          | 16256         | 59.7    | 858         | 102641        | 53.0    | -6.7                    |
| CATHOLIC           | 1009        | 231100        | 32.2    | 2658        | 197957        | 34.0    | 1.8                     |
| GEOGRAPHIC REGION: |             |               |         |             |               |         |                         |
| NORTHEAST          | 3525        | 785111        | 31.7    | 5558        | 680717        | 34.5    | 2.8                     |
| NORTH CENTRAL      | 4449        | 894966        | 35.5    | 7939        | 853358        | 37.1    | 1.6                     |
| SOUTH              | 5319        | 769762        | 32.9    | 9062        | 899768        | 37.9    | 5.0 *                   |
| WEST               | 2909        | 513091        | 30.9    | 5037        | 537842        | 35.2    | 4.3 *                   |
| CURRICULUM:        |             |               |         |             |               |         |                         |
| GENERAL            | 5506        | 942071        | 30.8    | 10061       | 1087093       | 34.5    | 3.7 *                   |
| ACADEMIC           | 6646        | 1359890       | 39.4    | 10398       | 1123523       | 44.1    | 4.7 *                   |
| VOCATIONAL         | 4049        | 660667        | 23.1    | 6738        | 718585        | 27.7    | 4.6 *                   |
| COMMUNITY TYPE:    |             |               |         |             |               |         |                         |
| URBAN              | 4429        | 767396        | 30.8    | 6328        | 591725        | 35.6    | 4.8 *                   |
| SUBURBAN           | 7758        | 1502946       | 32.4    | 13290       | 1470212       | 34.1    | 1.7                     |
| RURAL              | 3581        | 623516        | 38.0    | 7978        | 910247        | 40.6    | 2.6                     |

\*SIGNIFICANT AT .05 OR LESS



Table 6-41

## PERCENTAGE PARTICIPATING IN SUBJECT MATTER CLUBS

|                    | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL              | 16246       | 2970934       | 25.6    | 27421       | 2953602       | 23.9    | -1.8 *                  |
| SEX:               |             |               |         |             |               |         |                         |
| MALE               | 8037        | 1475854       | 20.3    | 12570       | 1365377       | 19.0    | -1.3                    |
| FEMALE             | 8205        | 1494314       | 30.9    | 13844       | 1486403       | 28.3    | -2.6 *                  |
| SES:               |             |               |         |             |               |         |                         |
| LOW                | 4641        | 715930        | 24.4    | 8165        | 786461        | 22.6    | -1.8                    |
| MIDDLE             | 7742        | 1520270       | 25.2    | 12517       | 1392631       | 23.8    | -1.4                    |
| HIGH               | 3805        | 724844        | 27.7    | 6054        | 707907        | 25.7    | -2.0                    |
| RACE:              |             |               |         |             |               |         |                         |
| WHITE              | 12605       | 2479184       | 25.0    | 19466       | 2317478       | 22.9    | -2.1 *                  |
| BLACK              | 1997        | 242039        | 33.1    | 3563        | 323655        | 28.8    | -4.4 *                  |
| ASIAN-AMERICAN     | 191         | 27418         | 26.6    | 355         | 38254         | 29.6    | 3.0                     |
| AMERICAN INDIAN    | 181         | 30424         | 27.9    | 213         | 21967         | 20.2    | 0.3                     |
| MEXICAN-AMERICAN   | 533         | 69748         | 23.8    | 1840        | 98521         | 25.2    | 1.4                     |
| PUERTO RICAN       | 93          | 9401          | 16.2    | 296         | 16880         | 18.1    | 1.9                     |
| OTHER HISPANIC     | 115         | 17689         | 30.1    | 931         | 63545         | 25.7    | -4.3                    |
| SCHOOL TYPE:       |             |               |         |             |               |         |                         |
| PUBLIC             | 14568       | 2637940       | 24.7    | 23928       | 2655250       | 23.8    | -1.0                    |
| PRIVATE            | 66          | 16256         | 20.5    | 845         | 101056        | 24.6    | 4.1                     |
| CATHOLIC           | 1010        | 231203        | 35.6    | 2648        | 197296        | 25.2    | -10.5 *                 |
| GEOGRAPHIC REGION: |             |               |         |             |               |         |                         |
| NORTHEAST          | 3533        | 787928        | 21.8    | 5525        | 676181        | 19.6    | -2.3                    |
| NORTH CENTRAL      | 4466        | 897079        | 26.8    | 7901        | 850823        | 21.3    | -5.5 *                  |
| SOUTH              | 5330        | 772652        | 31.0    | 8993        | 892017        | 30.8    | -0.3                    |
| WEST               | 2917        | 513275        | 21.3    | 5002        | 534581        | 21.9    | 0.6                     |
| CURRICULUM:        |             |               |         |             |               |         |                         |
| GENERAL            | 5521        | 944723        | 21.2    | 10008       | 1081657       | 19.6    | -1.6                    |
| ACADEMIC           | 6670        | 1364719       | 29.6    | 10330       | 1115939       | 28.7    | -0.9                    |
| VOCATIONAL         | 4054        | 661189        | 23.8    | 6686        | 713020        | 23.1    | -0.7                    |
| COMMUNITY TYPE:    |             |               |         |             |               |         |                         |
| URBAN              | 4436        | 767969        | 25.9    | 6285        | 586962        | 24.4    | -1.6                    |
| SUBURBAN           | 7783        | 1508449       | 24.8    | 13201       | 1460755       | 22.1    | -2.7 *                  |
| RURAL              | 3598        | 625789        | 27.5    | 7935        | 905885        | 26.5    | -1.0                    |

\*SIGNIFICANT AT .05 OR LESS

Table 6-42

## PERCENTAGE PARTICIPATING IN VOCATIONAL EDUCATION CLUBS

|                    | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL              | 16314       | 2980737       | 22.3    | 27481       | 2960166       | 23.2    | 0.9                     |
| SEX:               |             |               |         |             |               |         |                         |
| MALE               | 8064        | 1478928       | 15.5    | 12589       | 1367074       | 19.1    | 3.7 *                   |
| FEMALE             | 8246        | 1501044       | 29.0    | 13883       | 1490660       | 26.7    | -2.3 *                  |
| SES:               |             |               |         |             |               |         |                         |
| LOW                | 4684        | 721685        | 30.9    | 8181        | 788057        | 30.6    | -0.4                    |
| MIDDLE             | 7759        | 1522925       | 22.6    | 12559       | 1396712       | 24.1    | 1.5                     |
| HIGH               | 3813        | 726381        | 13.1    | 6054        | 708619        | 13.4    | 0.3                     |
| RACE:              |             |               |         |             |               |         |                         |
| WHITE              | 12650       | 2486837       | 21.3    | 19502       | 2322012       | 22.3    | 1.0                     |
| BLACK              | 2014        | 243040        | 32.7    | 3581        | 325843        | 30.1    | -2.6                    |
| ASIAN-AMERICAN     | 192         | 27607         | 12.1    | 353         | 38220         | 9.6     | -2.5                    |
| AMERICAN INDIAN    | 182         | 30717         | 27.7    | 213         | 21892         | 22.2    | -5.5                    |
| MEXICAN-AMERICAN   | 536         | 70288         | 31.1    | 1846        | 98117         | 30.2    | -1.0                    |
| PUERTO RICAN       | 92          | 9325          | 7.6     | 293         | 16820         | 9.0     | 1.4                     |
| OTHER HISPANIC     | 115         | 17646         | 17.1    | 940         | 64419         | 27.6    | 10.5                    |
| SCHOOL TYPE:       |             |               |         |             |               |         |                         |
| PUBLIC             | 14635       | 2647460       | 23.1    | 23982       | 2660863       | 24.9    | 1.8 *                   |
| PRIVATE            | 66          | 16256         | 9.7     | 848         | 101480        | 9.0     | -0.7                    |
| CATHOLIC           | 1009        | 231139        | 11.7    | 2651        | 197822        | 6.6     | -5.1 *                  |
| GEOGRAPHIC REGION: |             |               |         |             |               |         |                         |
| NORTHEAST          | 3546        | 791116        | 13.1    | 5525        | 676551        | 10.6    | -2.5 *                  |
| NORTH CENTRAL      | 4469        | 896302        | 22.0    | 7915        | 851947        | 20.0    | -2.0                    |
| SOUTH              | 5372        | 777535        | 36.3    | 9036        | 897090        | 40.0    | 3.7 *                   |
| WEST               | 2927        | 515785        | 15.7    | 5005        | 534578        | 15.8    | 0.1                     |
| CURRICULUM:        |             |               |         |             |               |         |                         |
| GENERAL            | 5546        | 948634        | 23.3    | 10026       | 1084132       | 22.6    | -0.6                    |
| ACADEMIC           | 6679        | 1365810       | 14.7    | 10344       | 1116869       | 13.1    | -1.6 *                  |
| VOCATIONAL         | 4088        | 665992        | 36.3    | 6718        | 716626        | 39.3    | 3.0 *                   |
| COMMUNITY TYPE:    |             |               |         |             |               |         |                         |
| URBAN              | 4447        | 769146        | 16.6    | 6286        | 586892        | 17.9    | 1.3                     |
| SUBURBAN           | 7810        | 1513109       | 18.5    | 13237       | 1464753       | 19.5    | 0.9                     |
| RURAL              | 3619        | 628569        | 38.3    | 7958        | 908521        | 32.5    | -5.8 *                  |

\*SIGNIFICANT AT .05 OR LESS

Table 6-43

## PERCENTAGE PARTICIPATING IN NEWSPAPER AND/OR YEARBOOK

|                    | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL              | 16233       | 2967880       | 20.2    | 27327       | 2943729       | 19.7    | -0.5                    |
| SEX:               |             |               |         |             |               |         |                         |
| MALE               | 8023        | 1472907       | 14.7    | 12528       | 1361630       | 15.4    | 0.7                     |
| FEMALE             | 8206        | 1494208       | 25.5    | 13792       | 1480026       | 24.0    | -1.5                    |
| SES:               |             |               |         |             |               |         |                         |
| LOW                | 4638        | 716223        | 17.6    | 8127        | 782543        | 15.7    | -1.9 *                  |
| MIDDLE             | 7742        | 1519896       | 20.2    | 12498       | 1390922       | 19.3    | -1.0                    |
| HIGH               | 3796        | 722152        | 22.8    | 6028        | 704672        | 25.3    | 2.5 *                   |
| RACE:              |             |               |         |             |               |         |                         |
| WHITE              | 12600       | 2477707       | 20.5    | 19414       | 2311043       | 20.1    | -0.3                    |
| BLACK              | 1996        | 241317        | 20.7    | 3546        | 322032        | 17.7    | -3.0 *                  |
| ASIAN-AMERICAN     | 191         | 27517         | 16.2    | 353         | 37982         | 21.4    | 5.2                     |
| AMERICAN INDIAN    | 182         | 30659         | 19.1    | 211         | 21613         | 25.6    | 6.5                     |
| MEXICAN-AMERICAN   | 527         | 69368         | 14.9    | 1831        | 97581         | 14.7    | -0.2                    |
| PUERTO RICAN       | 91          | 9200          | 16.0    | 293         | 17105         | 20.4    | 4.4                     |
| OTHER HISPANIC     | 117         | 17871         | 21.1    | 929         | 63671         | 16.2    | -4.9                    |
| SCHOOL TYPE:       |             |               |         |             |               |         |                         |
| PUBLIC             | 14554       | 2634258       | 19.4    | 23825       | 2644387       | 18.1    | -1.3 *                  |
| PRIVATE            | 66          | 16256         | 41.7    | 854         | 102276        | 45.0    | 3.3                     |
| CATHOLIC           | 1007        | 231166        | 27.8    | 2648        | 197066        | 28.0    | 0.2                     |
| GEOGRAPHIC REGION: |             |               |         |             |               |         |                         |
| NORTHEAST          | 3527        | 786314        | 22.0    | 5503        | 673674        | 24.6    | 2.6 *                   |
| NORTH CENTRAL      | 4450        | 894270        | 21.0    | 7879        | 848049        | 18.4    | -2.6 *                  |
| SOUTH              | 5332        | 772241        | 20.1    | 8962        | 889001        | 18.8    | -1.3                    |
| WEST               | 2924        | 515056        | 16.0    | 4983        | 533005        | 16.9    | 0.9                     |
| CURRICULUM:        |             |               |         |             |               |         |                         |
| GENERAL            | 5512        | 942680        | 17.1    | 9972        | 1078551       | 16.7    | -0.4                    |
| ACADEMIC           | 6665        | 1363662       | 24.3    | 10299       | 1112468       | 26.9    | 2.6 *                   |
| VOCATIONAL         | 4055        | 661236        | 16.0    | 6662        | 710661        | 13.2    | -2.8 *                  |
| COMMUNITY TYPE:    |             |               |         |             |               |         |                         |
| URBAN              | 4427        | 766558        | 17.8    | 6264        | 585839        | 18.0    | 0.2                     |
| SUBURBAN           | 7787        | 1508164       | 19.4    | 13163       | 1455563       | 17.5    | -2.0 *                  |
| RURAL              | 3585        | 623822        | 25.2    | 7900        | 902327        | 24.3    | -0.9                    |

\*SIGNIFICANT AT .05 OR LESS

Table 6-44

## PERCENTAGE PARTICIPATING IN STUDENT GOVERNMENT

|                    | NLS 1972    |               |         | MSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL              | 16163       | 2958781       | 19.4    | 27289       | 2941468       | 18.3    | -1.1 *                  |
| SEX:               |             |               |         |             |               |         |                         |
| MALE               | 8012        | 1473300       | 18.1    | 12497       | 1357916       | 15.8    | -2.3 *                  |
| FEMALE             | 8147        | 1484715       | 20.8    | 13791       | 1482345       | 21.0    | 0.2                     |
| SES:               |             |               |         |             |               |         |                         |
| LOW                | 4610        | 711990        | 14.0    | 8112        | 781997        | 13.3    | -0.7                    |
| MIDDLE             | 7695        | 1512739       | 18.5    | 12468       | 1387975       | 18.0    | -0.6                    |
| HIGH               | 3801        | 724236        | 26.6    | 6032        | 705906        | 25.2    | -1.4                    |
| RACE:              |             |               |         |             |               |         |                         |
| WHITE              | 12573       | 2474041       | 19.2    | 19393       | 2309480       | 17.7    | -1.5 *                  |
| BLACK              | 1956        | 236548        | 25.3    | 3544        | 321763        | 23.1    | -2.2                    |
| ASIAN-AMERICAN     | 191         | 27522         | 24.9    | 350         | 38072         | 23.6    | -1.2                    |
| AMERICAN INDIAN    | 182         | 30701         | 16.3    | 208         | 21387         | 20.7    | 4.3                     |
| MEXICAN-AMERICAN   | 527         | 68800         | 15.2    | 1820        | 97177         | 16.6    | 1.5                     |
| PUERTO RICAN       | 91          | 9256          | 18.3    | 293         | 16678         | 19.3    | 1.0                     |
| OTHER HISPANIC     | 115         | 17647         | 17.7    | 930         | 63875         | 16.2    | -1.6                    |
| SCHOOL TYPE:       |             |               |         |             |               |         |                         |
| PUBLIC             | 14482       | 2625107       | 19.1    | 23802       | 2643016       | 17.8    | -1.3 *                  |
| PRIVATE            | 65          | 16049         | 25.9    | 844         | 101052        | 29.7    | 3.8                     |
| CATHOLIC           | 1013        | 232220        | 20.8    | 2643        | 197400        | 19.9    | -1.0                    |
| GEOGRAPHIC REGION: |             |               |         |             |               |         |                         |
| NORTHEAST          | 3530        | 786974        | 18.6    | 5505        | 674525        | 18.4    | -0.2                    |
| NORTH CENTRAL      | 4451        | 894588        | 18.9    | 7879        | 847733        | 16.2    | -2.7 *                  |
| SOUTH              | 5275        | 765259        | 20.6    | 8926        | 886799        | 19.2    | -1.4                    |
| WEST               | 2907        | 511959        | 19.9    | 4979        | 532411        | 20.3    | 0.4                     |
| CURRICULUM:        |             |               |         |             |               |         |                         |
| GENERAL            | 5493        | 941318        | 15.1    | 9950        | 1075878       | 14.4    | -0.7                    |
| ACADEMIC           | 6658        | 1362957       | 26.0    | 10313       | 1114637       | 26.7    | 0.7                     |
| VOCATIONAL         | 4011        | 654203        | 11.9    | 6637        | 708807        | 11.5    | -0.4                    |
| COMMUNITY TYPE:    |             |               |         |             |               |         |                         |
| URBAN              | 4408        | 763416        | 19.1    | 6240        | 583877        | 19.6    | 0.4                     |
| SUBURBAN           | 7753        | 1504429       | 20.0    | 13166       | 1457312       | 17.1    | -2.9 *                  |
| RURAL              | 3572        | 622085        | 19.0    | 7883        | 900279        | 19.6    | 0.6                     |

\*SIGNIFICANT AT .05 OR LESS

Table 6-45

## PERCENTAGE PARTICIPATING IN HOBBY CLUBS

|                    | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL              | 16289       | 2977075       | 18.7    | 27447       | 2956163       | 22.9    | 4.1 *                   |
| SEX:               |             |               |         |             |               |         |                         |
| MALE               | 8064        | 1479779       | 24.3    | 12592       | 1367247       | 26.6    | 2.3 *                   |
| FEMALE             | 8221        | 1496531       | 13.2    | 13842       | 1486419       | 19.3    | 6.0 *                   |
| SES:               |             |               |         |             |               |         |                         |
| LOW                | 4664        | 719199        | 16.5    | 8170        | 787482        | 20.6    | 4.1 *                   |
| MIDDLE             | 7760        | 1522608       | 18.9    | 12544       | 1394607       | 23.4    | 4.5 *                   |
| HIGH               | 3808        | 725659        | 20.6    | 6051        | 707920        | 24.2    | 3.6 *                   |
| RACE:              |             |               |         |             |               |         |                         |
| WHITE              | 12622       | 2482342       | 18.4    | 19472       | 2317722       | 22.5    | 4.1 *                   |
| BLACK              | 2013        | 243535        | 20.0    | 3580        | 325915        | 23.0    | 3.0                     |
| ASIAN-AMERICAN     | 189         | 27302         | 16.8    | 354         | 38247         | 26.6    | 9.8                     |
| AMERICAN INDIAN    | 184         | 30886         | 29.5    | 213         | 21887         | 31.5    | 2.1                     |
| MEXICAN-AMERICAN   | 538         | 70541         | 18.6    | 1843        | 98402         | 24.6    | 6.0 *                   |
| PUERTO RICAN       | 93          | 9401          | 21.5    | 295         | 16864         | 21.5    | 0.1                     |
| OTHER HISPANIC     | 117         | 17905         | 14.2    | 936         | 64315         | 23.0    | 8.8                     |
| SCHOOL TYPE:       |             |               |         |             |               |         |                         |
| PUBLIC             | 14609       | 2644069       | 18.8    | 23954       | 2657941       | 22.8    | 4.0 *                   |
| PRIVATE            | 65          | 15050         | 19.0    | 846         | 100943        | 26.9    | 8.0                     |
| CATHOLIC           | 1009        | 230889        | 18.2    | 2647        | 197279        | 22.1    | 3.9                     |
| GEOGRAPHIC REGION: |             |               |         |             |               |         |                         |
| NORTHEAST          | 3544        | 789571        | 18.5    | 5529        | 676606        | 24.0    | 5.5 *                   |
| NORTH CENTRAL      | 4471        | 898904        | 18.0    | 7906        | 851160        | 21.0    | 3.0 *                   |
| SOUTH              | 5347        | 773280        | 17.9    | 9006        | 893628        | 22.0    | 4.1 *                   |
| WEST               | 2927        | 515320        | 21.6    | 5006        | 534769        | 25.8    | 4.2 *                   |
| CURRICULUM:        |             |               |         |             |               |         |                         |
| GENERAL            | 5531        | 946972        | 18.2    | 10014       | 1082745       | 22.5    | 4.3 *                   |
| ACADEMIC           | 6677        | 1364638       | 18.9    | 10334       | 1116037       | 22.9    | 4.0 *                   |
| VOCATIONAL         | 4080        | 665162        | 19.2    | 6703        | 714422        | 22.9    | 3.7 *                   |
| COMMUNITY TYPE:    |             |               |         |             |               |         |                         |
| URBAN              | 4452        | 770780        | 18.0    | 6287        | 587276        | 23.3    | 5.3 *                   |
| SUBURBAN           | 7803        | 1511316       | 18.4    | 13223       | 1462677       | 22.7    | 4.3 *                   |
| RURAL              | 3600        | 625654        | 20.5    | 7937        | 906210        | 22.8    | 2.3 *                   |

\*SIGNIFICANT AT .05 OR LESS

Participation in cheerleading declined between 1972 and 1980. As shown in Table 6-46, decline was greater for females than for males, for students in Catholic schools than for those in public or other non-Catholic private schools, and for students in the vocational curriculum.

Participation in honorary societies increased between 1972 and 1980. It is likely that this increase is linked to the increase in grades, since most honorary societies specify a grade point average for entrance. The increase was greater for males than females, and was larger for middle and high SES students, for students in nonpublic schools, and for academic curriculum students. (See Table 6-47.)

These data, taken together, suggest that student participation in extracurricular activities tended to increase between 1972 and 1980 in the recreational types of activities, such as athletics, hobby clubs and music groups, and showed a decline in extracurricular activities that provide an opportunity for non-formal learning, such as subject matter clubs, the newspaper, or yearbook.

#### K. COURSES TAKEN

The amount of instruction which students receive in a subject is usually closely related to their achievement in that subject. The number of courses taken in relevant subjects provide one indicator of the opportunity which a student has to learn the information and skills covered in the NLS and HS&B tests.

Information on the number of semesters of instruction in mathematics, English, science, social studies, and foreign languages were obtained from the 1972 and the 1980 seniors. The results, by classification groups, are shown in Tables 6-48 through 6-52.

There was a small but significant increase, between 1972 and 1980, in the number of semesters of mathematics which students reported taking. The mean rose from 3.93 semesters in 1972 to 4.06 semesters in 1980. The increase in the amount of mathematics taken was due primarily to females and to minorities. However, females continued to average fewer semesters of mathematics than males. Blacks, however, increased the amount of mathematics taken to an extent that, by 1980, they surpassed Whites. Asian-Americans and Puerto Ricans took more mathematics than Whites both in 1972 and in 1980. Mathematics course taking increased significantly in all curricula. Academic students continued to report taking more mathematics than general or vocational curriculum students, but vocational students showed the greatest increase.

Cross-tabulations show a significant increase in the number of mathematics courses taken by females in all curricula and by males in the academic and vocational curricula.



Table 6-46

## PERCENTAGE PARTICIPATING IN CHEERLEADING

|                    | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL              | 16247       | 2971262       | 17.3    | 27397       | 2951820       | 15.0    | -2.3 *                  |
| SEX:               |             |               |         |             |               |         |                         |
| MALE               | 7985        | 1468523       | 5.3     | 12522       | 1360890       | 4.5     | -0.8                    |
| FEMALE             | 8258        | 1501974       | 29.1    | 13869       | 1489181       | 24.8    | -4.3 *                  |
| SES:               |             |               |         |             |               |         |                         |
| LOW                | 4651        | 717578        | 14.8    | 8168        | 786419        | 13.0    | -1.7 *                  |
| MIDDLE             | 7738        | 1519618       | 18.4    | 12519       | 1392897       | 15.9    | -2.5 *                  |
| HIGH               | 3800        | 724058        | 17.7    | 6034        | 706699        | 15.6    | -2.1                    |
| RACE:              |             |               |         |             |               |         |                         |
| WHITE              | 12609       | 2480327       | 17.3    | 19447       | 2315618       | 14.9    | -2.4 *                  |
| BLACK              | 1991        | 240287        | 21.2    | 3576        | 325305        | 17.6    | -3.6 *                  |
| ASIAN-AMERICAN     | 190         | 27413         | 13.1    | 355         | 38397         | 14.6    | 1.4                     |
| AMERICAN INDIAN    | 182         | 30689         | 14.8    | 212         | 21868         | 17.0    | 2.2                     |
| MEXICAN-AMERICAN   | 537         | 70520         | 16.1    | 1831        | 97395         | 13.2    | -2.9                    |
| PUERTO RICAN       | 92          | 9346          | 7.6     | 295         | 16859         | 12.1    | 4.5                     |
| OTHER HISPANIC     | 116         | 17731         | 13.5    | 929         | 63472         | 11.0    | -2.5                    |
| SCHOOL TYPE:       |             |               |         |             |               |         |                         |
| PUBLIC             | 14565       | 2637516       | 17.1    | 23906       | 2653800       | 14.9    | -2.2 *                  |
| PRIVATE            | 65          | 16042         | 20.3    | 845         | 101225        | 17.3    | -3.0                    |
| CATHOLIC           | 1011        | 231557        | 19.8    | 2646        | 196794        | 14.7    | -5.1 *                  |
| GEOGRAPHIC REGION: |             |               |         |             |               |         |                         |
| NORTHEAST          | 3517        | 784345        | 14.0    | 5504        | 673936        | 11.5    | -2.6 *                  |
| NORTH CENTRAL      | 4467        | 897791        | 20.0    | 7902        | 851132        | 15.3    | -4.7 *                  |
| SOUTH              | 5333        | 773183        | 18.7    | 9002        | 894008        | 18.0    | -0.7                    |
| WEST               | 2930        | 515944        | 15.6    | 4989        | 532744        | 14.0    | -1.6                    |
| CURRICULUM:        |             |               |         |             |               |         |                         |
| GENERAL            | 5515        | 943933        | 15.9    | 9990        | 1080015       | 14.0    | -1.9 *                  |
| ACADEMIC           | 6670        | 1364595       | 19.0    | 10333       | 1116458       | 17.1    | -1.8 *                  |
| VOCATIONAL         | 4061        | 662431        | 15.9    | 6682        | 712897        | 13.3    | -2.6 *                  |
| COMMUNITY TYPE:    |             |               |         |             |               |         |                         |
| URBAN              | 4437        | 768540        | 16.1    | 6274        | 586385        | 14.3    | -1.9                    |
| SUBURBAN           | 7788        | 1508765       | 16.7    | 13187       | 1459166       | 13.1    | -3.6 *                  |
| RURAL              | 3592        | 625237        | 20.9    | 7936        | 906268        | 18.6    | -2.3 *                  |

Table 6-47

## PERCENTAGE PARTICIPATING IN HONORARY CLUBS

|                    | NLS 1972    |               |         | HSB 1980    |               |         | 1980-1972<br>DIFFERENCE |
|--------------------|-------------|---------------|---------|-------------|---------------|---------|-------------------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | PERCENT | SAMPLE<br>N | WEIGHTED<br>N | PERCENT |                         |
| TOTAL              | 16235       | 2970780       | 14.4    | 27339       | 2946629       | 16.8    | 2.4 *                   |
| SEX:               |             |               |         |             |               |         |                         |
| MALE               | 8030        | 1475398       | 10.7    | 12530       | 1361947       | 13.9    | 3.2 *                   |
| FEMALE             | 8201        | 1494617       | 18.1    | 13810       | 1483601       | 20.1    | 1.9 *                   |
| SES:               |             |               |         |             |               |         |                         |
| LOW                | 4639        | 716781        | 10.3    | 8124        | 782597        | 11.1    | 0.8                     |
| MIDDLE             | 7733        | 1519824       | 13.2    | 12514       | 1393046       | 16.3    | 3.1 *                   |
| HIGH               | 3806        | 724572        | 21.2    | 6024        | 705028        | 25.1    | 3.9 *                   |
| RACE:              |             |               |         |             |               |         |                         |
| WHITE              | 12606       | 2480023       | 15.1    | 19434       | 2314473       | 17.7    | 2.7 *                   |
| BLACK              | 1981        | 240071        | 11.7    | 3546        | 322714        | 13.7    | 2.0                     |
| ASIAN-AMERICAN     | 189         | 27344         | 23.6    | 353         | 38336         | 23.4    | -0.2                    |
| AMERICAN INDIAN    | 183         | 30798         | 6.6     | 210         | 21629         | 13.5    | 6.9                     |
| MEXICAN-AMERICAN   | 534         | 70168         | 9.5     | 1828        | 97028         | 12.0    | 2.4                     |
| PUERTO RICAN       | 93          | 9401          | 11.8    | 292         | 16902         | 14.5    | 2.8                     |
| OTHER HISPANIC     | 117         | 17905         | 12.0    | 931         | 63665         | 11.0    | -1.0                    |
| SCHOOL TYPE:       |             |               |         |             |               |         |                         |
| PUBLIC             | 14559       | 2637995       | 14.5    | 23861       | 2649219       | 16.5    | 2.1 *                   |
| PRIVATE            | 66          | 16256         | 13.3    | 843         | 100705        | 17.2    | 3.9                     |
| CATHOLIC           | 1009        | 231005        | 14.6    | 2635        | 196705        | 20.4    | 5.9 *                   |
| GEOGRAPHIC REGION: |             |               |         |             |               |         |                         |
| NORTHEAST          | 3535        | 788542        | 12.7    | 5507        | 674570        | 16.0    | 3.3 *                   |
| NORTH CENTRAL      | 4449        | 894709        | 12.1    | 7889        | 850062        | 15.2    | 3.1 *                   |
| SOUTH              | 5327        | 771839        | 18.0    | 8961        | 889602        | 19.6    | 1.6                     |
| WEST               | 2924        | 515690        | 15.7    | 4982        | 532395        | 15.7    | -0.0                    |
| CURRICULUM:        |             |               |         |             |               |         |                         |
| GENERAL            | 5518        | 945351        | 8.1     | 9979        | 1079274       | 9.6     | 1.5 *                   |
| ACADEMIC           | 6666        | 1363662       | 22.3    | 10315       | 1114777       | 29.1    | 6.8 *                   |
| VOCATIONAL         | 4050        | 661464        | 7.3     | 6658        | 710560        | 8.9     | 1.6 *                   |
| COMMUNITY TYPE:    |             |               |         |             |               |         |                         |
| URBAN              | 4434        | 767569        | 12.6    | 6261        | 585327        | 15.6    | 3.0 *                   |
| SUBURBAN           | 7791        | 1510073       | 14.6    | 13167       | 1457804       | 16.5    | 1.9 *                   |
| RURAL              | 3584        | 624597        | 16.9    | 7911        | 903498        | 18.1    | 1.3                     |

\*SIGNIFICANT AT .05 OR LESS

Table 6-48

## SEMESTERS (HALF-YEARS) OF MATHEMATICS

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 11771       | 2173309       | 3.93 | 1.8  | 27928       | 3010150       | 4.06 | 1.9  | 1.89           | 0.14 *                  | 0.07           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 5897        | 1087004       | 4.22 | 1.8  | 12754       | 1385675       | 4.31 | 1.9  | 1.89           | 0.09                    | 0.05           |
| FEMALE             | 5871        | 1085602       | 3.63 | 1.8  | 13980       | 1501739       | 3.87 | 1.9  | 1.86           | 0.24 *                  | 0.13           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 3276        | 509101        | 3.45 | 1.9  | 8289        | 799547        | 3.60 | 1.9  | 1.91           | 0.16 *                  | 0.08           |
| MIDDLE             | 5628        | 1114947       | 3.88 | 1.8  | 12693       | 1412714       | 3.99 | 1.9  | 1.89           | 0.11 *                  | 0.06           |
| HIGH               | 2830        | 543308        | 4.47 | 1.7  | 6155        | 720884        | 4.73 | 1.7  | 1.70           | 0.27 *                  | 0.16           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 9228        | 1826746       | 3.97 | 1.8  | 19695       | 2347008       | 4.04 | 1.9  | 1.90           | 0.07                    | 0.04           |
| BLACK              | 1402        | 170619        | 3.86 | 1.6  | 3709        | 337785        | 4.28 | 1.8  | 1.77           | 0.42 *                  | 0.24           |
| ASIAN-AMERICAN     | 144         | 21430         | 4.28 | 1.8  | 364         | 39208         | 4.91 | 1.8  | 1.78           | 0.63 *                  | 0.35           |
| AMERICAN INDIAN    | 117         | 19854         | 2.67 | 1.7  | 215         | 22132         | 3.52 | 1.9  | 1.86           | 0.85 *                  | 0.46           |
| MEXICAN-AMERICAN   | 341         | 45673         | 3.30 | 1.7  | 1873        | 101049        | 3.73 | 1.8  | 1.79           | 0.43 *                  | 0.24           |
| PUERTO RICAN       | 62          | 6308          | 4.09 | 2.0  | 303         | 17963         | 4.26 | 2.1  | 2.11           | 0.18                    | 0.08           |
| OTHER HISPANIC     | 77          | 11792         | 4.12 | 1.7  | 959         | 65832         | 4.07 | 1.9  | 1.91           | -0.05                   | -0.03          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 10595       | 1936725       | 3.86 | 1.9  | 24393       | 2707514       | 3.98 | 1.9  | 1.90           | 0.12 *                  | 0.06           |
| PRIVATE            | 37          | 10207         | 5.26 | 1.8  | 862         | 103179        | 4.69 | 1.7  | 1.73           | -0.57                   | -0.33          |
| CATHOLIC           | 750         | 171402        | 4.50 | 1.5  | 2673        | 199457        | 4.90 | 1.7  | 1.70           | 0.40 *                  | 0.23           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 2765        | 634287        | 4.48 | 1.7  | 5622        | 689521        | 4.67 | 1.8  | 1.79           | 0.18 *                  | 0.10           |
| NORTH CENTRAL      | 3173        | 634438        | 3.42 | 2.0  | 8026        | 862126        | 3.75 | 2.0  | 1.99           | 0.33 *                  | 0.16           |
| SOUTH              | 3815        | 551044        | 4.08 | 1.7  | 9192        | 913255        | 4.13 | 1.8  | 1.78           | 0.05                    | 0.03           |
| WEST               | 2018        | 353540        | 3.60 | 1.8  | 5088        | 545248        | 3.70 | 1.9  | 1.84           | 0.10                    | 0.05           |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 3994        | 679408        | 3.34 | 1.8  | 10176       | 1099978       | 3.58 | 1.9  | 1.85           | 0.23 *                  | 0.13           |
| ACADEMIC           | 5023        | 1042789       | 4.72 | 1.6  | 10491       | 1135281       | 5.01 | 1.6  | 1.60           | 0.28 *                  | 0.18           |
| VOCATIONAL         | 2753        | 450809        | 2.97 | 1.7  | 6850        | 730207        | 3.36 | 1.8  | 1.80           | 0.39 *                  | 0.22           |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3015        | 520626        | 3.87 | 1.8  | 6432        | 603016        | 4.21 | 1.8  | 1.83           | 0.34 *                  | 0.19           |
| SUBURBAN           | 5751        | 1129230       | 4.11 | 1.8  | 13458       | 1490643       | 4.17 | 1.9  | 1.87           | 0.05                    | 0.03           |
| RURAL              | 2686        | 475034        | 3.58 | 1.9  | 8038        | 916491        | 3.80 | 2.0  | 1.95           | 0.22 *                  | 0.11           |

\*SIGNIFICANT AT .05 OR LESS

There was no significant change in the amount of instruction in English. The mean number of semesters of English was 5.83 in 1972 and 5.86 in 1980. This was not surprising since most high schools require students to take a course in English each semester. Females, high SES students, Blacks, Catholic school students, students in urban schools, and students in the academic curriculum showed small but significant increases between 1972 and 1980 in the amount of English taken. Cross-tabulations show significant increases in the amount of English taken by males and females in the academic curriculum.

The amount of science taken by students decreased slightly but significantly between 1972 and 1980. In 1972 students reported taking an average of 3.71 semesters but, by 1980, this had declined to 3.46 semesters. The decline was greater for males than for females and occurred primarily among middle and low SES students, White students, public school students, and students in the general and vocational curriculum. Cross-tabulations show significant decreases for both males and females in the general curriculum for low and middle SES students in the general curriculum, and for low SES students in the academic curriculum. High SES students in the academic curriculum showed a significant increase in the number of semesters of science taken.

There was a larger increase in number of courses which students reported taking in the social sciences, declining from 5.21 semesters in 1972 to 4.64 semesters in 1980. This decrease was significant for all classification groups. The decreases are also persistent across all cross-classifications.

The largest change in course-taking behavior, however, occurred in foreign languages where there was a decline from 2.64 semesters of instruction in 1972 to 1.65 semesters in 1980. Again, this decrease was consistent across classification groups and across cross-classifications. Despite this decline academic curriculum students continued to take more semesters of foreign language instruction than general or vocational curriculum students.

In summary, students showed a small but significant increase in the number of courses taken in mathematics, no change in the amount of coursework in English, and significant decreases in the amount of coursework in science, social science, and foreign languages. The decrease in foreign languages was the greatest, equivalent to a full semester of instruction.

Taken together, the results in this chapter show several major changes in students' attitudes, values and behaviors between 1972 and 1980. Educational aspirations increased for females and for students in the academic curriculum. More females in 1980 than in 1972 planned to enter a 4-year college after high school. There was an increase in the percentage of students who believed they had the ability to complete college. Students placed higher value on job security and pay in 1980 than in 1972. Concern with social issues decreased markedly while interest in making money rose.

Table 6-49

## SEMESTERS (HALF-YEARS) OF ENGLISH

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 12286       | 2272928       | 5.83 | 0.9  | 27864       | 3005326       | 5.86 | 1.2  | 1.09           | 0.03                    | 0.03           |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 6091        | 1124264       | 5.82 | 1.0  | 12727       | 1383276       | 5.83 | 1.2  | 1.13           | 0.02                    | 0.01           |
| FEMALE             | 6192        | 1147961       | 5.84 | 0.9  | 13954       | 1500031       | 5.92 | 1.1  | 1.02           | 0.08 *                  | 0.08           |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 3444        | 539892        | 5.80 | 1.0  | 8254        | 797188        | 5.78 | 1.3  | 1.20           | -0.02                   | -0.02          |
| MIDDLE             | 5894        | 1167770       | 5.81 | 1.0  | 12682       | 1411330       | 5.85 | 1.1  | 1.08           | 0.05                    | 0.04           |
| HIGH               | 2909        | 559051        | 5.91 | 0.9  | 6141        | 719608        | 6.01 | 0.9  | 0.92           | 0.11 *                  | 0.12           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 9641        | 1910475       | 5.84 | 0.9  | 19684       | 2345967       | 5.87 | 1.1  | 1.04           | 0.03                    | 0.03           |
| BLACK              | 1445        | 177446        | 5.82 | 0.9  | 3680        | 335855        | 5.95 | 1.3  | 1.18           | 0.13 *                  | 0.11           |
| ASIAN-AMERICAN     | 141         | 20867         | 5.87 | 0.8  | 364         | 39346         | 5.83 | 1.2  | 1.08           | -0.04                   | -0.04          |
| AMERICAN INDIAN    | 133         | 22386         | 5.56 | 1.0  | 211         | 21611         | 5.79 | 1.4  | 1.26           | 0.22                    | 0.18           |
| MEXICAN-AMERICAN   | 352         | 46743         | 5.64 | 1.0  | 1861        | 100116        | 5.64 | 1.5  | 1.42           | -0.01                   | -0.01          |
| PUERTO RICAN       | 65          | 6683          | 6.01 | 1.1  | 302         | 17840         | 6.06 | 1.2  | 1.20           | 0.04                    | 0.04           |
| OTHER HISPANIC     | 81          | 12262         | 5.74 | 1.0  | 955         | 65423         | 5.79 | 1.4  | 1.35           | 0.05                    | 0.04           |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 11045       | 2025354       | 5.82 | 1.0  | 24333       | 2702779       | 5.83 | 1.2  | 1.12           | 0.01                    | 0.01           |
| PRIVATE            | 35          | 9883          | 6.48 | 0.5  | 863         | 103388        | 6.12 | 0.8  | 0.78           | -0.36 *                 | -0.46          |
| CATHOLIC           | 778         | 176948        | 5.89 | 0.8  | 2668        | 199160        | 6.20 | 0.8  | 0.76           | 0.31 *                  | 0.41           |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 2942        | 670711        | 5.97 | 0.8  | 5617        | 689951        | 6.15 | 0.9  | 0.84           | 0.18 *                  | 0.21           |
| NORTH CENTRAL      | 3339        | 667607        | 5.74 | 1.1  | 8006        | 859481        | 5.64 | 1.3  | 1.25           | -0.10 *                 | -0.08          |
| SOUTH              | 3932        | 569433        | 5.87 | 0.8  | 9165        | 911814        | 6.01 | 1.0  | 0.96           | 0.13 *                  | 0.14           |
| WEST               | 2073        | 365177        | 5.66 | 1.1  | 5076        | 544079        | 5.62 | 1.3  | 1.24           | -0.04                   | -0.03          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 4178        | 715287        | 5.81 | 1.0  | 10159       | 1099199       | 5.79 | 1.2  | 1.15           | -0.02                   | -0.02          |
| ACADEMIC           | 5083        | 1057683       | 5.93 | 0.9  | 10476       | 1133944       | 6.10 | 0.8  | 0.84           | 0.17 *                  | 0.20           |
| VOCATIONAL         | 3024        | 499655        | 5.65 | 1.0  | 6823        | 728008        | 5.63 | 1.4  | 1.29           | -0.02                   | -0.02          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3155        | 544501        | 5.78 | 1.1  | 6408        | 601608        | 5.88 | 1.2  | 1.17           | 0.10 *                  | 0.08           |
| SUBURBAN           | 5975        | 1176146       | 5.85 | 0.9  | 13425       | 1486588       | 5.88 | 1.1  | 1.05           | 0.03                    | 0.03           |
| RURAL              | 2828        | 502039        | 5.84 | 0.9  | 8031        | 917129        | 5.83 | 1.2  | 1.11           | -0.01                   | -0.01          |

\*SIGNIFICANT AT .05 OR LESS

Table 6-50

## SEMESTERS (HALF-YEARS) OF SCIENCE

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 12002       | 2212239       | 3.71 | 1.8  | 27482       | 2963192       | 3.46 | 1.9  | 1.90           | -0.25 *                 | -0.13          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 6000        | 1105236       | 3.93 | 1.8  | 12570       | 1364606       | 3.68 | 2.0  | 1.93           | -0.26 *                 | -0.13          |
| FEMALE             | 6000        | 1106511       | 3.48 | 1.7  | 13753       | 1479646       | 3.29 | 1.9  | 1.84           | -0.19 *                 | -0.10          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 3372        | 523686        | 3.30 | 1.7  | 8123        | 785221        | 2.98 | 1.8  | 1.81           | -0.33 *                 | -0.18          |
| MIDDLE             | 5730        | 1132824       | 3.67 | 1.8  | 12518       | 1391644       | 3.39 | 1.9  | 1.89           | -0.28 *                 | -0.15          |
| HIGH               | 2860        | 549435        | 4.16 | 1.7  | 6084        | 712532        | 4.18 | 1.9  | 1.82           | 0.02                    | 0.01           |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 9397        | 1857346       | 3.77 | 1.8  | 19465       | 2317289       | 3.48 | 2.0  | 1.91           | -0.29 *                 | -0.15          |
| BLACK              | 1449        | 178724        | 3.52 | 1.7  | 3604        | 328674        | 3.45 | 1.9  | 1.80           | -0.07                   | -0.04          |
| ASIAN-AMERICAN     | 138         | 20447         | 3.82 | 1.8  | 357         | 38220         | 4.12 | 1.9  | 1.90           | 0.30                    | 0.16           |
| AMERICAN INDIAN    | 120         | 19788         | 2.75 | 1.5  | 212         | 21783         | 3.02 | 1.7  | 1.62           | 0.27                    | 0.17           |
| MEXICAN-AMERICAN   | 350         | 46627         | 2.96 | 1.6  | 1828        | 98836         | 3.05 | 1.6  | 1.64           | 0.09                    | 0.06           |
| PUERTO RICAN       | 66          | 6750          | 3.67 | 1.7  | 290         | 17517         | 3.57 | 2.0  | 1.97           | -0.10                   | -0.05          |
| OTHER HISPANIC     | 81          | 12236         | 3.80 | 1.9  | 945         | 64933         | 3.31 | 1.8  | 1.84           | -0.48                   | -0.26          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 10782       | 1968412       | 3.67 | 1.8  | 23988       | 2663244       | 3.39 | 1.9  | 1.90           | -0.27 *                 | -0.14          |
| PRIVATE            | 37          | 10261         | 4.71 | 1.5  | 858         | 102478        | 4.01 | 1.8  | 1.84           | -0.70                   | -0.38          |
| CATHOLIC           | 755         | 172780        | 4.12 | 1.7  | 2636        | 197471        | 4.05 | 1.8  | 1.78           | -0.07                   | -0.04          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 2796        | 637836        | 4.27 | 1.7  | 5532        | 680186        | 4.02 | 2.0  | 1.93           | -0.25 *                 | -0.13          |
| NORTH CENTRAL      | 3268        | 652119        | 3.39 | 1.9  | 7896        | 848245        | 3.23 | 2.0  | 1.97           | -0.16 *                 | -0.08          |
| SOUTH              | 3910        | 564813        | 3.69 | 1.6  | 9027        | 898224        | 3.42 | 1.8  | 1.77           | -0.26 *                 | -0.15          |
| WEST               | 2028        | 357471        | 3.30 | 1.7  | 5027        | 536538        | 3.16 | 1.8  | 1.75           | -0.14                   | -0.08          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 4065        | 689721        | 3.22 | 1.7  | 10004       | 1082888       | 3.01 | 1.8  | 1.73           | -0.21 *                 | -0.12          |
| ACADEMIC           | 5085        | 1058080       | 4.44 | 1.7  | 10353       | 1120754       | 4.45 | 1.8  | 1.77           | 0.01                    | 0.00           |
| VOCATIONAL         | 2852        | 464438        | 2.75 | 1.6  | 6716        | 715584        | 2.62 | 1.7  | 1.67           | -0.13 *                 | -0.08          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3098        | 532901        | 3.53 | 1.8  | 6296        | 590089        | 3.50 | 1.9  | 1.87           | -0.04                   | -0.02          |
| SUBURBAN           | 5823        | 1144546       | 3.85 | 1.8  | 13250       | 1466021       | 3.50 | 1.9  | 1.90           | -0.35 *                 | -0.19          |
| RURAL              | 2763        | 485944        | 3.60 | 1.8  | 7936        | 907082        | 3.38 | 1.9  | 1.91           | -0.22 *                 | -0.12          |

\*SIGNIFICANT AT .05 OR LESS



Table 6-51

## SEMESTERS (HALF-YEARS) OF SOCIAL STUDIES

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| TOTAL              | 12256       | 2268019       | 5.21 | 1.3  | 27724       | 2987813       | 4.64 | 1.6  | 1.48           | -0.58 *                 | -0.39          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 6076        | 1121728       | 5.26 | 1.3  | 12679       | 1376254       | 4.67 | 1.6  | 1.49           | -0.59 *                 | -0.40          |
| FEMALE             | 6177        | 1145588       | 5.17 | 1.3  | 13877       | 1491507       | 4.62 | 1.5  | 1.46           | -0.55 *                 | -0.38          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 3432        | 538240        | 5.21 | 1.3  | 8228        | 793765        | 4.47 | 1.7  | 1.55           | -0.74 *                 | -0.47          |
| MIDDLE             | 5883        | 1166225       | 5.23 | 1.3  | 12622       | 1404423       | 4.66 | 1.5  | 1.46           | -0.57 *                 | -0.39          |
| HIGH               | 2902        | 557340        | 5.20 | 1.3  | 6116        | 715268        | 4.79 | 1.5  | 1.41           | -0.41 *                 | -0.29          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 9629        | 1907092       | 5.21 | 1.3  | 19605       | 2334037       | 4.66 | 1.5  | 1.45           | -0.55 *                 | -0.38          |
| BLACK              | 1439        | 177009        | 5.25 | 1.2  | 3652        | 333225        | 4.54 | 1.7  | 1.56           | -0.71 *                 | -0.46          |
| ASIAN-AMERICAN     | 140         | 20717         | 5.38 | 1.0  | 362         | 38907         | 4.71 | 1.5  | 1.36           | -0.67 *                 | -0.49          |
| AMERICAN INDIAN    | 131         | 22091         | 5.04 | 1.3  | 213         | 21887         | 4.37 | 1.7  | 1.57           | -0.67 *                 | -0.43          |
| MEXICAN-AMERICAN   | 348         | 46352         | 5.19 | 1.2  | 1849        | 99656         | 4.31 | 1.7  | 1.62           | -0.88 *                 | -0.55          |
| PUERTO RICAN       | 65          | 6683          | 5.57 | 1.4  | 297         | 17729         | 4.74 | 1.7  | 1.66           | -0.83 *                 | -0.50          |
| OTHER HISPANIC     | 81          | 12695         | 4.92 | 1.2  | 956         | 64905         | 4.51 | 1.7  | 1.65           | -0.41                   | -0.25          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 11025       | 2021952       | 5.22 | 1.3  | 24202       | 2687407       | 4.61 | 1.6  | 1.48           | -0.61 *                 | -0.41          |
| PRIVATE            | 35          | 9083          | 4.92 | 1.7  | 863         | 103525        | 4.68 | 1.5  | 1.53           | -0.24                   | -0.16          |
| CATHOLIC           | 770         | 175405        | 5.12 | 1.2  | 2659        | 196880        | 4.90 | 1.5  | 1.43           | -0.22 *                 | -0.15          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 2928        | 667291        | 5.27 | 1.3  | 5578        | 683857        | 4.99 | 1.5  | 1.39           | -0.28 *                 | -0.20          |
| NORTH CENTRAL      | 3344        | 669039        | 5.23 | 1.3  | 7957        | 854840        | 4.63 | 1.6  | 1.51           | -0.60 *                 | -0.40          |
| SOUTH              | 3924        | 568847        | 5.05 | 1.3  | 9141        | 909058        | 4.41 | 1.6  | 1.50           | -0.64 *                 | -0.43          |
| WEST               | 2060        | 362842        | 5.35 | 1.2  | 5048        | 540057        | 4.57 | 1.5  | 1.45           | -0.78 *                 | -0.54          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 4171        | 714397        | 5.29 | 1.3  | 10113       | 1094017       | 4.59 | 1.6  | 1.51           | -0.70 *                 | -0.46          |
| ACADEMIC           | 5069        | 1054420       | 5.26 | 1.2  | 10421       | 1126445       | 4.84 | 1.5  | 1.39           | -0.42 *                 | -0.30          |
| VOCATIONAL         | 3015        | 498899        | 5.01 | 1.3  | 6784        | 723297        | 4.38 | 1.6  | 1.54           | -0.63 *                 | -0.41          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 3131        | 540625        | 5.14 | 1.3  | 6374        | 598851        | 4.60 | 1.6  | 1.49           | -0.54 *                 | -0.36          |
| SUBURBAN           | 5958        | 1172238       | 5.22 | 1.2  | 13352       | 1475931       | 4.66 | 1.5  | 1.46           | -0.56 *                 | -0.38          |
| RURAL              | 2839        | 504697        | 5.28 | 1.3  | 7998        | 913031        | 4.62 | 1.6  | 1.52           | -0.66 *                 | -0.44          |

\*SIGNIFICANT AT .05 OR LESS

Table 6-52

## SEMESTERS (HALF-YEARS) OF FOREIGN LANGUAGES

|                    | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|                    | SAMPLE<br>N | WEIGHTED<br>H | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>H | MEAN | S.D. |                |                         |                |
| TOTAL              | 9976        | 1868395       | 2.64 | 2.2  | 27573       | 2971555       | 1.65 | 2.1  | 2.10           | -0.99 *                 | -0.47          |
| SEX:               |             |               |      |      |             |               |      |      |                |                         |                |
| MALE               | 4858        | 909112        | 2.38 | 2.1  | 12560       | 1363884       | 1.48 | 2.0  | 2.03           | -0.90 *                 | -0.44          |
| FEMALE             | 5114        | 958485        | 2.88 | 2.2  | 13874       | 1490834       | 1.84 | 2.1  | 2.14           | -1.04 *                 | -0.48          |
| SES:               |             |               |      |      |             |               |      |      |                |                         |                |
| LOW                | 2557        | 400436        | 1.79 | 2.1  | 8169        | 788875        | 1.13 | 1.8  | 1.88           | -0.65 *                 | -0.35          |
| MIDDLE             | 4770        | 956400        | 2.56 | 2.2  | 12553       | 1395654       | 1.52 | 2.0  | 2.02           | -1.04 *                 | -0.52          |
| HIGH               | 2622        | 506190        | 3.47 | 2.0  | 6094        | 713085        | 2.52 | 2.3  | 2.18           | -0.94 *                 | -0.43          |
| RACE:              |             |               |      |      |             |               |      |      |                |                         |                |
| WHITE              | 7923        | 1591648       | 2.70 | 2.2  | 19488       | 2321438       | 1.65 | 2.1  | 2.09           | -1.05 *                 | -0.50          |
| BLACK              | 1062        | 127404        | 2.07 | 2.1  | 3631        | 331761        | 1.47 | 2.0  | 2.01           | -0.61 *                 | -0.30          |
| ASIAN-AMERICAN     | 133         | 19111         | 3.19 | 1.9  | 360         | 38682         | 2.34 | 2.1  | 2.06           | -0.86 *                 | -0.42          |
| AMERICAN INDIAN    | 102         | 16122         | 1.37 | 2.0  | 208         | 21394         | 0.86 | 1.7  | 1.78           | -0.51                   | -0.29          |
| MEXICAN-AMERICAN   | 322         | 42867         | 2.23 | 2.1  | 1854        | 99596         | 1.80 | 2.0  | 2.04           | -0.44 *                 | -0.22          |
| PUERTO RICAN       | 56          | 6273          | 3.24 | 2.3  | 296         | 17688         | 2.78 | 2.5  | 2.46           | -0.46 *                 | -0.19          |
| OTHER HISPANIC     | 68          | 10464         | 3.87 | 1.9  | 955         | 65113         | 1.80 | 2.3  | 2.28           | -2.07 *                 | -0.91          |
| SCHOOL TYPE:       |             |               |      |      |             |               |      |      |                |                         |                |
| PUBLIC             | 8930        | 1650286       | 2.50 | 2.2  | 24064       | 2672068       | 1.51 | 2.0  | 2.04           | -0.99 *                 | -0.49          |
| PRIVATE            | 40          | 11105         | 4.75 | 2.4  | 851         | 101193        | 2.94 | 2.5  | 2.49           | -1.81 *                 | -0.73          |
| CATHOLIC           | 717         | 166596        | 3.88 | 1.9  | 2658        | 198294        | 2.82 | 2.1  | 2.05           | -1.06 *                 | -0.52          |
| GEOGRAPHIC REGION: |             |               |      |      |             |               |      |      |                |                         |                |
| NORTHEAST          | 2312        | 540588        | 3.70 | 2.0  | 5540        | 679430        | 2.36 | 2.3  | 2.21           | -1.34 *                 | -0.60          |
| NORTH CENTRAL      | 2827        | 570554        | 2.00 | 2.0  | 7910        | 850526        | 1.37 | 2.0  | 1.98           | -0.63 *                 | -0.32          |
| SOUTH              | 2973        | 436253        | 2.42 | 2.1  | 9082        | 902324        | 1.31 | 1.9  | 1.93           | -1.11 *                 | -0.57          |
| WEST               | 1864        | 320999        | 2.27 | 2.1  | 5041        | 539275        | 1.74 | 2.0  | 2.05           | -0.54 *                 | -0.26          |
| CURRICULUM:        |             |               |      |      |             |               |      |      |                |                         |                |
| GENERAL            | 3211        | 549218        | 1.75 | 2.0  | 10049       | 1086832       | 1.15 | 1.8  | 1.82           | -0.60 *                 | -0.33          |
| ACADEMIC           | 4802        | 998674        | 3.53 | 2.0  | 10415       | 1126266       | 2.68 | 2.2  | 2.15           | -0.85 *                 | -0.40          |
| VOCATIONAL         | 1963        | 320503        | 1.35 | 1.8  | 6710        | 715600        | 0.81 | 1.5  | 1.58           | -0.54 *                 | -0.34          |
| COMMUNITY TYPE:    |             |               |      |      |             |               |      |      |                |                         |                |
| URBAN              | 2642        | 461884        | 2.76 | 2.2  | 6344        | 594833        | 1.80 | 2.1  | 2.15           | -0.96 *                 | -0.45          |
| SUBURBAN           | 4968        | 989658        | 2.90 | 2.1  | 13276       | 1469579       | 1.83 | 2.1  | 2.13           | -1.06 *                 | -0.50          |
| RURAL              | 2122        | 378412        | 1.82 | 2.0  | 7953        | 907143        | 1.24 | 1.9  | 1.89           | -0.58 *                 | -0.31          |

\*SIGNIFICANT AT .05 OR LESS

Students became more self-confident but less sure of their ability to control their own lives. The amount of homework done decreased. There was a decrease in the amount of coursework taken in science, social studies and foreign languages but an increase in the amount of coursework in mathematics.

## CHAPTER VII

### PARTITIONING MEAN TEST SCORE CHANGES

As was indicated in Chapter II, the relational analysis in this study utilizes three methods: (1) partitioning of mean test score changes, (2) analysis of covariance partitioning, and (3) path analysis. This chapter utilizes the first method to partition the total score change into the part due to population shifts and the part due to mean changes within the classification groups. This type of analysis provides considerable detail about how classifying an individual on one or two variables at a time relates to test score change between 1972 and 1980.

#### A. METHODOLOGY

The overall mean for two or more subgroups can be viewed as the sum of the subgroup means when each subgroup mean is weighted in accordance with its proportion of the total group. In other words,

$$\bar{X}_T = (p \bar{x})_1 + (p \bar{x})_2 + \dots$$

Where  $\bar{X}_T$  is the mean for total sample and  $p$  is proportional size of each subgroup and  $\bar{x}$  is the mean of each subgroup.

Furthermore, a decline or gain in some time period--in the present case, from 1972 to 1980--is as follows:

$$\bar{X}_{T80} - \bar{X}_{T72} = (p_{80} \bar{x}_{80} - p_{72} \bar{x}_{72})_1 + (p_{80} \bar{x}_{80} - p_{72} \bar{x}_{72})_2 + \dots$$

Thus, the total mean can change as a result of either a change in the mean of a subgroup or a change in the proportional representation of that subgroup. We will refer to the first component as the group mean change or  $G$  and the second as the population shift change or  $P$ . To estimate the magnitude of these components, two different calculations are made. The first component ( $G$ ) is calculated by applying, for each subgroup, the group's proportion in 1972 to the group's mean in the 1980 population, and then summing over all subgroups. The result is the mean score in 1980 that would have been expected if each subgroup's representation in the population had not changed but its mean had changed. The difference between this number and the observed 1972 mean is the change due to subgroup mean changes, or  $G$ .

The change due to population shift, or P, is calculated by applying, for each subgroup, the group's proportion in the 1980 population to the group's mean score in 1972, and then summing over all subgroups and proceeding as with G.

The sum of P and G is not equal to the total mean change for the grouping variable, for there may be an interaction between the two components. This interaction component (I) is calculated simply by subtracting the sum of P and G from the total mean change. In most cases, the term is a negligibly small number, and even where it is not its meaning usually is so difficult to interpret that the authors have not attempted to do so.

#### 1. Moment of Group Mean Change

When, in a given time period, the means for two or more subgroups change and, in addition, each subgroup's proportion in the population changes, it is not obvious how much each subgroup may have contributed to the total mean change. For this reason, a fourth statistic was computed that is referred to as the moment of the subgroup mean (M) because of its similarity to the familiar moment or torque in physics. This is the difference between the group's "weighted distance" in 1980 and in 1972. This distance is computed as the product of the group's proportional representation in its own year and the deviation of the group's mean from the 1972 grand mean. The moment, M, or, more precisely, the change in moment may be expressed as

$$\Delta M = p_2(\bar{X}_2 - \bar{X}_{1T}) - p_1(\bar{X}_1 - \bar{X}_{1T})$$

where  $p_2$  and  $p_1$  are the proportions at time 2 and time 1,  $\bar{X}_{1T}$  is the total mean at time 1, and  $\bar{X}_2$  and  $\bar{X}_1$  are the subgroup means at time 2 and time 1. The sum of the  $\Delta M$ 's or the change in the weighted distances over all groups is the distance of the whole population from the original mean, i.e., the difference between the 1980 and 1972 grand mean. In the tables to be presented shortly, the  $\Delta M$  for each subgroup was divided by the total mean change from 1972 to 1980 and multiplied by 100. This quantity is referred to as partition due to group. A large number in the partition due to group column can be a result of a population change for a highly deviant group (an increased proportion for a low-scoring group or decreased representation of a high-scoring group) and/or a score decline for a group that is unusually large relative to other groups. Also note that if, for a particular group,  $p_2 = p_1$ , then  $\Delta M = p(\bar{X}_2 - \bar{X}_1)$ . Interpretation of the score partitions must be in conjunction with score mean and proportion statistics, as well as the change due to population shift index.

In discussing the results for a particular grouping variable, e.g., race/ethnicity, we frequently will refer to the contribution of a

particular category or subgroup, e.g., White students, to the overall decline, judging from the change in the subgroup's moment. It should be understood in all cases that the apparent causation may well be spurious; that is, the change in the variable in question may be a reflection of a change in some more fundamentally causative variable with which it is correlated. In the interest of brevity, we usually will omit the proper qualifications.

## 2. Some Comments on Mean Score Change

To assist the reader in interpreting mean score changes for a group from 1972 to 1980, the following comments are offered. The mean score for a particular subgroup of the total sample can change from 1972 to 1980 for at least four possible reasons:

1. The members of the category may in 1980 represent a smaller more selected sample (or a larger, less selected sample) of the population than in 1972. For example, since the proportion of students in the academic curriculum decreased from 1972 to 1980, it is reasonable to expect less score decline or even a score gain in this subgroup from 1972 to 1980 if the students remaining in this curriculum represent a higher ability stratum of the population.

2. A difference in the mean score for a subgroup may reflect a change in the personal characteristics of the population of students represented by the subgroup category. For example, in 1972 the category "Suburban students in academic programs" may have been predominantly White students, whereas in 1980 the category may have included a significant fraction of non-White students.

3. From 1972 to 1980, the classroom, school, or community environment may have changed in such a way as to change the behavior of the students at the two times.

4. The meaning of the category may have changed. For example, in 1972 the category "Less than 5 hours of homework" may have meant that the average category member did 4 hours of homework each week, whereas in 1980 the members of that category did an average of 2 hours of homework each week. In other words, the authors may have been only partially successful in holding certain independent variables constant by subdividing the total group into categories. Each of these possible interpretations are exemplified in the results reported in the next section.

## B. VARIABLES

The dependent variables for the relational analyses are the three IRT scores already described in the descriptive analyses: the Vocabulary, Reading, and Mathematics scores. The classification or grouping variables for the score change partitioning are:



1. Total
2. Sex: male, female
3. Socioeconomic status (SES) (high, middle, low)
4. Race/ethnicity (White, Asian-American and American Indian; Black; Mexican-American; other Hispanic)
5. School type (public vs. nonpublic)
6. Geographical region (Northeast, North Central, South, West)
7. Curriculum (academic vs. general and vocational)
8. Community type (urban, rural, suburban)
9. Homework time/week (5 or more hours vs. less than 5 hours)
10. Level of education planned (less than high school, high school, vocational/junior college, college, graduate/professional school)
11. Number of "study aids" in home (2 or fewer vs. 3 or more)
12. Attitude towards more academic emphasis (agree vs. disagree)
13. Projects/labs used in courses (never-seldom vs. fairly often-frequently)
14. Essays used in courses (never-seldom vs. fairly often-frequently)
15. Percent of teachers with M.S., Ph.D. (0-49% vs. 50-100%)
16. Percent of White students in school (0-89% vs. 90-100%)
17. Percent college-bound in school (0-29%, 30-49%, 50-69%, 70-100%)
18. High school offers Advanced Placement courses (Yes/No)
19. Semesters of mathematics (4 or fewer vs. 5 or more)
20. Semesters of science (4 or fewer vs. 5 or more)
21. Semesters of foreign language (3 or fewer vs. 4 or more)
22. Athletic participation (Yes vs. No)
23. Mother's educational aspirations for son or daughter (No 4-year college vs. 4-year college)

### C. RESULTS

The results are presented separately for each of the three tests--vocabulary, reading, and mathematics. In each case the test score is the IRT (Item Response Theory) scaled score. (See Rock et al., 1984a, for a description of the psychometric procedures.)

#### 1. Vocabulary

Vocabulary test results were determined for each of the subcategories of the 23 classification variables. The results are shown in Table D-1 of Appendix D.

a. Sex. The results for sex will be described in considerably more detail than subsequent variables in order to illustrate the method used. Table 7-1 shows the relevant results for IRT Vocabulary, with sex as the classifying variable. Notice first that, as was indicated in the descriptive analysis, women displayed greater declines from 1972 to 1980 than men (-.98 vs. -.54). The origin and cause of this decline are unknown, but the tables suggest some hypotheses.

That the score of the average female declined more than that of the average male is a fact that must be dealt with. But whether the difference contributed to the mean change for the total sample depends on the proportional size of the female sample in 1972 and 1980. As shown in Section A of Table 7-1, the estimated size of the male population decreased by 207,000 and the female population decreased by 78,000, leading to changes in the proportions from .50 to .47 for males and from .50 to .53 for females. (These estimates are based on actual data cases. In 1972, the sex identification item of the Student Questionnaire was omitted by 5 sample members or 1,017 in the weighted sample, and in 1980 the parallel item was omitted by 1,247 sample members or 127,789 in the weighted sample.) In accordance with the procedure described earlier we can estimate that these changes in population proportions would have resulted in an overall score gain of .01, as shown in Section F of Table 7-1. This is a negligible amount.

We also can estimate how much the total mean would have changed as a result of subgroup mean changes (See Section E in Table 7-1). This is -.76 or practically all of the observed change, since the interaction (see Section G in Table 7-1) is negligible. In other words, the total change did not result from a population shift or from an interaction of the shift and the subgroup means, but from a change in the subgroup means themselves.

How much each subgroup contributed to the 1972-1980 change is indicated by Section D in Table 7-1. This change is  $\Delta M$ /total difference. The results indicate that the change in score means and change in population proportions for the women accounted for twice as much of the change as that accounted for by the men. Since the change in the population

Table 7-1

Mean IRT Vocabulary Scores in 1972 and 1980 by Sex, with Partitioning

|                                                                          | <u>Year</u> |             | <u>1980-1972<br/>Difference</u> |
|--------------------------------------------------------------------------|-------------|-------------|---------------------------------|
|                                                                          | <u>1972</u> | <u>1980</u> |                                 |
| A. Estimated population size                                             |             |             |                                 |
| Male                                                                     | 1,426,000   | 1,218,000   | -207,000                        |
| Female                                                                   | 1,434,000   | 1,356,000   | - 78,000                        |
| Total                                                                    | 2,859,000   | 2,574,000   | -285,000                        |
| B. Proportion of high school senior population                           |             |             |                                 |
| Male                                                                     | 0.50        | 0.47        | -.03                            |
| Female                                                                   | 0.50        | 0.53        | .03                             |
| C. Mean Vocabulary score                                                 |             |             |                                 |
| Male                                                                     | 6.44        | 5.90        | -.54                            |
| Female                                                                   | 6.67        | 5.69        | -.98                            |
| Total                                                                    | 6.55        | 5.79        | -.77                            |
| D. Partition of 1972-1980 difference due to group (the change in moment) |             |             |                                 |
| Male                                                                     |             |             | 33%                             |
| Female                                                                   |             |             | 67%                             |
| E. Expected change with no population shift (G)                          |             |             | -0.76                           |
| F. Change due to population shift (P)                                    |             |             | 0.01                            |
| G. Change due to interaction (I)                                         |             |             | -0.01                           |

proportions was slight, the contribution of each subgroup was approximately proportional to the score decline of each group.

In order to examine the effect of grouping by sex when other variables were held roughly constant, the sex categories were subdivided. The result, when cross-classified by socioeconomic status, was that middle and high SES women displayed the largest score declines. When Vocabulary scores were cross-classified by sex and by race/ethnicity, the White females showed the greatest decline (-1.00), and contributed by far the most to the total decline (54%). They were followed by the White males (-.57) and the Black females (-.33). The Black males actually gained in IRT Vocabulary score (.47), but, because their proportional cell size was relatively minor, they had a negligible effect on the overall decline.

The scores of females in each curriculum subgroup declined more than the males, with the scores of females in academic programs declining the most (-1.00). But the women in the general and vocational programs contributed more to the total decline since their population proportion increased more. The differing patterns of change in school program enrollments by males and females was one of the more important educational trends from 1972 to 1980, as was shown in the descriptive analyses. In number, the males in academic programs decreased the most while the number of females in vocational and general programs increased the most. When the regions were cross-classified by sex, women in the Northeast emerged with the largest decline and they also contributed the most to the overall decline.

The scores of women who reported they devoted less than five hours each week to homework declined appreciably more than the scores of women who reported five hours or more and contributed much more to the total decline, apparently because the proportional number in the category increased substantially. Students who felt that their schools should have more academic emphasis tended to have lower vocabulary test scores than students who disagreed, and the number of such students increased from 1972 to 1980, especially among women. One of the largest vocabulary score declines for any subgroup was the decline of 1.30 scaled score points for the women who disagreed that their schools needed more academic emphasis. This category also declined dramatically in number, from 616,000 to 347,000. As was noted in the descriptive analysis, satisfaction with the academic program on the part of students decreased markedly from 1972 to 1980. Why women who were satisfied with the academic emphasis in their school should display such a large score decline is not clear. What we do know is that in 1972 they were high scoring (7.20) and in 1980 they were near the middle of the distribution (5.90). The largest score decline was for women in "mostly White" schools, and these women also contributed most to the overall decline.

b. Socioeconomic Status. Next the total sample was divided into three socioeconomic status (SES) groups, and the changes were partitioned in the same way as for sex. As shown in Table D-1 of the Appendix, the

score decline is correlated with level of SES; the low group displayed the least decline (-.53) and the high group the greatest (-.93). As with sex, the component attributable to population shift is small, but this result is meaningless since the SES categories for 1972 and 1980 were created by standardizing within year.

Cross-classification of score changes by SES and by race/ethnicity and curriculum yielded results that tended to be similar to the main effects.

Cross-classification of SES by region and by amount of homework indicated that high SES students in the South displayed the greatest decline. Population shifts for combinations of SES and amount of homework contributed appreciably to the overall decline, apparently because of increases in the proportion of low and middle SES students reporting they did less than five hours of homework each week.

Cross-classification of SES by attitude towards academic emphasis and by percentge of White students in the school showed that high SES students who did not agree that their schools should have more academic emphasis--a group with high mean scores--declined appreciably (-.96) and contributed the most to the total decline.

Middle SES students in mostly White schools (90-100% White), which is the largest category by far in size, contributed the most to the total score decline simply because of its size.

c. Race/Ethnicity. In the third major analysis of test score changes by race/ethnicity, the change due to population shifts is non-trivial (Table D-1). As might be expected since the student population is predominantly White, the partitioning of the total change indicates that the White students contributed by far the most to the score decline. The Other Hispanic group showed approximately the same score decline as the White students, but their numbers are so small that their contribution to the grand mean is slight.

As indicated above, White female students showed the largest decline and contributed the most to the overall decline.

Cross-classification of race/ethnicity by curriculum yielded one of the largest population shift effects observed (-.39) as a result of a huge decline in the number of a high-scoring subgroup, the White students in academic programs, and because of the simultaneous slight increase in the proportion of a low-scoring group, the White students in vocational and general programs. Apparently, the decline in high school enrollments from 1972 to 1980 occurred largely among White students in academic programs, while White students in vocational and general programs increased slightly, presumably because of shifts of White students from the academic program to the vocational and general program. A small share of the score decline in this table (8%) was attributable to a small increase in the proportion of an extremely low-scoring group, the Black students in vocational and general programs.

Cross-classification of race/ethnicity by geographical region, and by hours of homework indicated that shifts in the proportion of racial groups in various geographical regions may have accounted for as much as .20 points of the total decline, with decreasing numbers of White students in the Northeast and in the North Central the leading contributors.

White students who reported less than five hours of homework each week showed the greatest decline and the largest contribution to the total decline, primarily because of the large size of the subgroup.

Racial/ethnic cross-classification by attitude towards academic emphasis and by the percentage of White students in the school indicated that shifts in these categories may have contributed to much of the total score decline. White students who did not wish more academic emphasis in their school showed the greatest score decline and contributed the most to the total decline, apparently because they represent an above average group that decreased by almost 50 percent as a proportion of the population. The more important fact, however, is that from 1972 to 1980 the number of students who agreed that there should be more emphasis on academics increased by nearly 500,000.

Students in the Other Hispanic subgroup in predominantly White schools declined the most, but the White students in such schools contributed the most because of their larger numbers.

d. School Type. Students attending nonpublic schools tended to decline in IRT vocabulary by the same amount as public school students, and controlling for sex, SES, race, curriculum, geographical region and hours of homework did not make an appreciable difference (Table D-1). Because of the relatively large size of the public school groups, they accounted for most of the total decline. The largest decline was shown by nonpublic students in the South. Their number was too small to result in a significant contribution to the total decline.

e. Geographic Region. Classification of the data by geographical region revealed few insights not reported already. Within each region higher mean declines tended to be displayed by females, high SES students, Whites, students enrolled in the academic curriculum, students reporting less homework, students disagreeing that their school should place more emphasis on academics, and by students in predominantly White schools. The substantial decrease in the number of White students in the Northeast and academic students in the Northeast, both of which are high-scoring groups, resulted in significant contributions to the overall score decline.

f. Curriculum. Grouping by curriculum indicated that shifts in the numbers enrolled in each curriculum category resulted in major contributions to the score decline. The academic students displayed the greatest mean vocabulary test score decline (-.67 vs. -.50 for the general and vocational students) and also contributed to the overall decline since they constituted a high-scoring group that decreased in number. However, the vocational and general category contributed slightly more since they were a low-scoring category that increased in number.



The cross-classifications yielded no new findings except for attitudes toward academic emphasis and percentage of White students in the school. The striking decline in the number of academic students who did not think there should be more academic emphasis resulted, along with concomitant changes in other categories, in an unusually high figure for the total change due to population shift, namely, .45. In other words, over half of the total decline could be attributable to this effect alone.

The large decline in the number and proportion of academic students in predominantly White schools also resulted in a large estimate of total change due to population shift (-.34).

g. Community Type. Classification by community type generated results which define further the schools which were the large contributors to the decline. Students in urban schools declined the most, but, because of their larger number, suburban schools contributed most to the decline. The cross-classifications point to the following categories within community type as significant contributors to the total decline:

Suburban females

Suburban high-SES students

Suburban White students

Suburban academic students

Suburban students reporting less than five hours of homework

Suburban students disagreeing that there should be more  
academic emphasis

Suburban students in predominantly White schools

Urban students in the Northeast displayed an unusually large decline (-1.43) but, because of their relatively small number, they did not contribute appreciably to the decline.

h. Homework per Week. The number of hours that the students reported they devoted to homework each week resulted in a number of substantial differences when the students were divided into those groups that reported less than five hours each week and those that reported five hours or more. Hours of homework clearly is correlated with IRT Vocabulary score. Students reporting less than five hours each week had mean scores in 1980 that were nearly one-half a standard deviation less than those reporting five hours or more. Females who reported less than five hours declined 1.09 on the average versus a decline of .22 for those who reported five hours or more. The comparable figures for men were -.60 and +.03. Since the number of women reporting less than five hours of homework increased from 28 percent of the total sample in 1972 to 37 percent in 1980, the contribution of the group to the total decline amounted to -.44 or 56 percent of the total change.

Similarly, the SES groups that reported less homework showed substantially greater declines than those reporting more homework, and the same held for the other cross-classifications. The cross-tabulation of "academic emphasis" and hours of homework resulted in another large estimated population shift, apparently attributable primarily to the massive increase (from 790,000 to 1,300,000) in the number of students who reported less than five hours homework and who agreed that their schools should have placed more emphasis on basic academic subjects.

i. Education Planned. Unfortunately, a large number of students failed to answer this item in the 1972 survey, which introduces added uncertainty in the results. Of most interest is the decrease in the proportion planning to attend college. As a result, this category contributed more than the others to the overall decline.

j. Study Aids in Home. Sample members who reported three or more study aids in their home had higher mean vocabulary scores than students who reported two or less aids, but both groups showed approximately equal declines. However, because the proportion of students reporting three or more study aids declined (from .8 to .7), that category contributed appreciably more to the overall decline than the "two or less" category. Furthermore, the cross-classifications by sex, SES, race, and curriculum indicate that the females who identified themselves as being White, Asian-American or American Indian, contributed the most to the decline.

k. Attitude towards Academic Emphasis. Students who disagreed with the proposition that there should be more emphasis on academics in the curriculum had higher Vocabulary scores than those who agreed with the statement and also showed greater declines; the women, White, Asian-American, and American Indian, and academic curriculum categories again contributed the most to the decline.

l. Instructional Variables. Two measures were selected as important dimensions of instruction. The first measure, whether projects and labs were used in the courses taken by the student during "this year," generated no relevant differences. The second measure, whether essays were used, is more interesting. Those who reported essays were used fairly often or frequently had higher mean scores in both 1972 and 1980. Women who reported they never or seldom wrote essays declined more than women who wrote essays "fairly often or frequently." "Other Hispanic" students who never or seldom wrote essays declined more than other racial/ethnic groups and students who disagreed that there should be emphasis on academic matters and who never or seldom wrote essays declined markedly (-1.34). They also declined in number.

m. School Variables. Of five measures selected to reflect possibly important school variables, three provided noteworthy results. Students in schools in which 90 to 100 percent were White displayed greater declines than students in schools with less than 90 percent Whites, and in these predominantly White schools, the White students declined most and also accounted for the largest share of the total decline.

Secondly, schools which did not offer Advanced Placement courses displayed greater declines and contributed most to the overall decline; within this group, the higher SES, White women in academic programs declined the most and contributed most to the overall decline.

Thirdly, students in schools with 50 percent to 100 percent of full-time teachers with advanced degrees declined more than students in schools in which less than 50 percent of the teachers had advanced degrees; they also accounted for a larger share of the overall decline. In addition, the following categories displayed high declines and large shares of the total decline:

High percentage schools in the South

High percentage schools in which students did less homework

Low percentage schools in which students disagreed with more academic emphasis

n. Exposure to Subject Matter. The number of semesters in which the student enrolled in mathematics, science, and foreign language seems to have played an important role. Students enrolled in 4 or fewer semesters of mathematics or 4 or fewer semesters of science displayed greater declines and contributed more to the total decline than students taking 5 or more semesters. The increase in the proportion of students taking more mathematics and science could have produced a gain in overall mean score; however, the group means decreased enough to offset the population increase.

The results in the foreign languages are somewhat different from those for mathematics and science. Students who reported they took 4 or more foreign language courses had relatively high Vocabulary scores (an interesting finding in itself), and the proportion of students taking fewer language courses increased. However, when the sex of the student is taken into consideration, the absolute number of the men taking fewer language courses decreased by approximately 130,000 and the number of women by 15,000. Thus, there was a loss from the sample, from 1972 to 1980, of a relatively large number of men who took fewer language courses, and a corresponding increase in the proportion of women taking fewer language courses. Nevertheless, the mean decline in vocabulary score was greater for the women than for the men, so the overall decline cannot be said to result simply from a population shift. Indeed, only 7/78ths or 9 percent was attributable to a population shift. But it was the men who "caused" the population shift in terms of their decrease in absolute number. This effect demonstrates the complexity of attributing causation to subgroups of the total sample.

o. Participation in Athletics. This measure, which could have been discussed as an "exposure" variable, was included in this analysis because of the changes in rate of participation from 1972 to 1980. Specifically, this rate increased from 45 percent to 52 percent. The gain was largely

attributable to the women athletes, who increased in number by 103,000 or 23 percent while the men athletes decreased by 47,000 or 6 percent. The female nonathletes declined most in score and contributed most to the overall decline, presumably because of their relatively large number.

As far as the other cross-classifications are concerned, the pattern followed the main effects already reported.

p. Mother's Educational Aspirations for Student. In both 1972 and 1980 the mean Vocabulary scores of students for whom mothers had aspirations of four-year college attendance were substantially higher than those of the balance of the students, but the mean scores of the women in this category declined substantially from 1972 to 1980 and contributed most to the total change. "Other Hispanics" in the "No four-year college" category also declined substantially but, because of their relatively small numbers, did not contribute appreciably to the total decline.

## 2. Reading

For this test and the Mathematics test to follow, we will focus primarily on results that either strongly reinforce conclusions suggested by the Vocabulary results or that are at odds with them.

As shown in Table 7-2, the results for IRT Reading, when classified by sex, are similar to those of IRT Vocabulary, with the exception that the change in moment of the female category is less than it was for the Vocabulary score, apparently because the males declined almost as much as the females. Between 1972 and 1980 the scores of the males and females in Reading converged to a point of equality.

The results for other grouping variables (shown in Appendix Table D-2) are similar except that mean Reading scores for students in the South declined more than for other regions and more than the Vocabulary scores declined. The cross-classifications indicate that males in the South and middle-class students in the South declined the most.

The cross-classification of community type and SES is of particular interest in that the results appear to document the migration of higher SES subgroups from urban areas. The middle and high SES urban and suburban categories decreased in number while the rural categories all increased in number. The largest decline was for high SES students in the suburbs, followed by low SES students in rural areas. Whether the "movers" or the "stayers" changed most in mean score would have required longitudinal data, but the suggestion is that the movers declined least since the mean for the rural category, which increased the most in size, declined the least in score.

The analysis by educational aspirations revealed unusually large declines, especially for students with low educational aspirations. However, the relatively large amount of missing data for this particular measure requires that the results be interpreted with caution.

Table 7-2

Mean IRT Reading Scores in 1972 and 1980 by Sex with Partitioning

|                                                 | <u>Year</u> |             | <u>1980-1972<br/>Difference</u> |
|-------------------------------------------------|-------------|-------------|---------------------------------|
|                                                 | <u>1972</u> | <u>1980</u> |                                 |
| A. Estimated population size                    |             |             |                                 |
| Male                                            | 1,427,000   | 1,215,000   | -212,000                        |
| Female                                          | 1,435,000   | 1,352,000   | - 83,000                        |
| Total                                           | 2,862,000   | 2,567,000   | -295,000                        |
| B. Proportion of population                     |             |             |                                 |
| Male                                            | 0.50        | 0.47        | -.03                            |
| Female                                          | 0.50        | 0.53        | .03                             |
| C. Mean Reading score                           |             |             |                                 |
| Male                                            | 9.83        | 8.95        | -0.88                           |
| Female                                          | 9.95        | 8.96        | -0.99                           |
| Total                                           | 9.89        | 8.95        | -0.93                           |
| D. Partition of total change due to group (M)   |             |             |                                 |
| Male                                            |             | 44%         |                                 |
| Female                                          |             | 56%         |                                 |
| E. Expected change with no population shift (G) |             |             | -0.93                           |
| F. Change due to population shift (P)           |             |             | 0.00                            |
| G. Change due to interaction (I)                |             |             | -0.00                           |

The measure of study aids in the home also revealed large declines--larger for comparable groups than for the Vocabulary score. Those students reporting two or fewer study aids declined more than the "three or more" category. High SES students reporting two or fewer aids showed a high decline (-2.21), but because they were a small proportion of the population their contribution to the overall decline was slight.

### 3. Mathematics

Generally, the grouping variables that seem to be implicated in the declines of the Vocabulary and Reading scores are also implicated in the decline of the IRT Mathematics score. (See Table 7-3.) However, the magnitude of the changes due to population shifts tends to be greater than in the case of Vocabulary and Reading. Furthermore, the major grouping variables generated a number of noteworthy differences. (Appendix Table D-3.) Students in the South declined the most (-1.88) and contributed most to the overall decline. Students who reported less than five hours homework each week declined considerably and accounted for most of the total decline (99%). Other subgroups that declined appreciably and contributed to the total decline were:

Students who disagreed that there should be more emphasis  
on academics

Males (unlike vocabulary and reading)

White students

When the sample was grouped by curriculum, neither group (i.e., neither the academic group nor the vocational/general group) declined appreciably, but because the academic group represented a high scoring group that declined substantially in proportion and the vocational and general group represented a low scoring group that gained in proportion, the value of P, the total change due to population shifts, was substantial (-.53). In addition, the cross-classifications pointed to certain subgroups as possibly having an important role:

Males who disagreed that there should be more academic  
emphasis

Low SES White students

Low SES students reporting less than 5 hours of homework

White students reporting less than 5 hours homework



Table 7-3

Mean IRT Mathematics Scores in 1972 and 1980 by Sex with Partitioning

|                                                 | <u>Year</u> |             | <u>1980-1972<br/>Difference</u> |
|-------------------------------------------------|-------------|-------------|---------------------------------|
|                                                 | <u>1972</u> | <u>1980</u> |                                 |
| A. Estimated population size                    |             |             |                                 |
| Male                                            | 1,426,000   | 1,214,000   | -213,000                        |
| Female                                          | 1,435,000   | 1,346,000   | - 89,000                        |
| Total                                           | 2,861,000   | 2,560,000   | -301,000                        |
| B. Proportion of population                     |             |             |                                 |
| Male                                            | 0.50        | 0.47        | -.03                            |
| Female                                          | 0.50        | 0.53        | .03                             |
| C. Mean Mathematics score                       |             |             |                                 |
| Male                                            | 13.79       | 12.83       | -0.95                           |
| Female                                          | 12.09       | 11.39       | -0.70                           |
| Total                                           | 12.94       | 12.07       | -.92                            |
| D. Partition of total change due to group (M)   |             |             |                                 |
| Male                                            |             |             | 55%                             |
| Female                                          |             |             | 45%                             |
| E. Expected change with no population shift (G) |             |             | -0.83                           |
| F. Change due to population shift (P)           |             |             | 0.04                            |
| G. Change due to interaction (I)                |             |             | -0.01                           |

Public school students reporting less than 5 hours homework

Students in the South reporting less than 5 hours homework

Academic students who disagreed that there should be more emphasis on academics

Vocational and general curriculum students who reported 2 or fewer study aids in the home (low scoring students whose number nearly doubled)

Students who never or seldom had projects and labs and who reported less than 5 hours homework (large group with large decline who increased in proportion)

### C. SUMMARY OF MEAN SCORE CHANGE PARTITIONING

The most relevant statistics concerning the score decline for Vocabulary, Reading, and Mathematics are summarized in Tables 7-4, 7-5, and 7-6. The first conclusion one can draw from these tables concerns the similarity of the numbers in them and the agreement across the three tests with respect to the subgroups that may have contributed the most to the total decline, as reflected in the quantity we have chosen to call

$\Delta M$ , the change in the moment of the subgroup mean. This quantity might be described as the weighted distance of the 1980 group mean from the 1972 grand mean minus the weighted distance of the group's 1972 mean from the 1972 grand mean. Thus, it reflects (1) any change in the size of the group (as a proportion of the total sample), (2) any change in the mean of the group, and (3) the distance between the mean of the group and the grand mean.

Because of the many and complex reasons why a subgroup may have contributed to the overall decline, we have prepared Table 7 which lists the major reasons for the contribution of each of the subgroups that contributed the most.

Table 7-7 highlights a major conclusion from the score change partitioning analysis, namely that we must recognize three major categories of groups that contributed to the total score declines. The first category is those large groups that contributed a large amount to the decline simply because they represented a large number of individuals whose scores declined, but no more or less than students in other groups. The second category comprises population shifts--either increases in the proportional representation of low-scoring groups or decreases in the proportional representation of high-scoring groups. The third category comprises groups that exhibited large score declines and were substantial in size, for if they were small their contribution to the total decline was negligible.

Table 7-4

Population Shift Effect, Subgroup Mean Change Effect, and Change in Moment<sup>1</sup>  
of Grouping Variables by IRT Vocabulary Score

| <u>Variables</u>       | <u>Population Shift</u> | <u>Group Mean Change</u> | <u>Largest Change in Moment (percent)</u> | <u>Subgroup With Largest Change in Moment</u> |
|------------------------|-------------------------|--------------------------|-------------------------------------------|-----------------------------------------------|
| Demographic            |                         |                          |                                           |                                               |
| Sex                    | .01                     | -.76                     | 67                                        | Females                                       |
| SES                    | -.06                    | -.74                     | 46                                        | Middle                                        |
| Race/ethnicity         | -.17                    | -.73                     | 80                                        | White students                                |
| Geographical region    | -.06                    | -.79                     | 32                                        | South                                         |
| Community type         | -.09                    | -.88                     | 55                                        | Suburban                                      |
| Student behaviors      |                         |                          |                                           |                                               |
| Curriculum             | -.25                    | -.58                     | 52                                        | Vocational, general                           |
| Hours of homework      | -.12                    | -.66                     | 85                                        | Less than 5 hours                             |
| Educational plans      | .00                     | -1.45                    | 35                                        | College                                       |
| Semesters, mathematics | .14                     | -1.01                    | 71                                        | 4 or fewer                                    |
| Semesters, science     | .02                     | -.88                     | 91                                        | 4 or fewer                                    |
| Semesters, language    | -.07                    | -.78                     | 71                                        | 3 or fewer                                    |
| Athletic participation | .00                     | -.87                     | 55                                        | No participation                              |
| Attitude, academics    | -.24                    | -.70                     | 58                                        | Disagree with more emphasis                   |
| School characteristics |                         |                          |                                           |                                               |
| Public, nonpublic      | .02                     | -.92                     | 92                                        | Public                                        |
| Projects used          | -.06                    | -.79                     | 57                                        | Never, seldom                                 |
| Essays used            | -.01                    | -.83                     | 57                                        | Fairly often, frequently                      |
| Teachers ed.           | .12                     | -.93                     | 53                                        | 50-100% advanced                              |
| Percentage White       | -.11                    | -.74                     | 66                                        | 90-100%                                       |
| Advanced placement     | .12                     | -1.00                    | 58                                        | No advanced placement                         |
| Percentage, college    | -.16                    | -.72                     | 32                                        | 50-69%                                        |
| Home support           |                         |                          |                                           |                                               |
| Study aids             | -.20                    | -.68                     | 62                                        | 3 or more                                     |
| Mothers aspirations    | .10                     | -1.05                    | 69                                        | 4-year college                                |

<sup>1</sup>Moment refers to the extent to which a subgroup may have contributed to the total decline in comparison to the other subgroups of that variable.

Table 7-5

Population Shift Effect, Subgroup Mean Change Effect, and Change in Moment<sup>1</sup>  
of Grouping Variables by IRT Reading Score

| <u>Variables</u>       | <u>Population<br/>Shift</u> | <u>Group<br/>Mean<br/>Change</u> | <u>Largest<br/>Change in<br/>Moment<br/>(percent)</u> | <u>Subgroup With<br/>Largest Change<br/>in Moment</u> |
|------------------------|-----------------------------|----------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| Demographic            |                             |                                  |                                                       |                                                       |
| Sex                    | .00                         | -.93                             | 55                                                    | Females                                               |
| SES                    | -.07                        | -.90                             | 44                                                    | Middle                                                |
| Race/ethnicity         | -.21                        | -.89                             | 75                                                    | White students                                        |
| Geographical region    | -.05                        | -.99                             | 40                                                    | South                                                 |
| Community type         | -.06                        | -1.11                            | 54                                                    | Suburban                                              |
| Student behaviors      |                             |                                  |                                                       |                                                       |
| Curriculum             | -.31                        | -.69                             | 59                                                    | Vocational, general                                   |
| Hours of homework      | -.14                        | -.80                             | 89                                                    | Less than 5 hours                                     |
| Educational plans      | -.01                        | -1.86                            | 35                                                    | Vocational, Junior<br>College                         |
| Semesters, mathematics | .19                         | -1.25                            | 71                                                    | 4 or fewer                                            |
| Semesters, science     | .02                         | -1.08                            | 91                                                    | 4 or fewer                                            |
| Semesters, language    | -.09                        | -.96                             | 71                                                    | 3 or fewer                                            |
| Athletic participation | .03                         | -1.07                            | 50                                                    | Yes, participates                                     |
| Attitude, academics    | -.30                        | -.83                             | 58                                                    | Disagree with more<br>emphasis                        |
| School characteristics |                             |                                  |                                                       |                                                       |
| Public, nonpublic      | .03                         | -1.12                            | 92                                                    | Public                                                |
| Projects used          | -.07                        | -.96                             | 62                                                    | Never, seldom                                         |
| Essays used            | -.02                        | -1.03                            | 53                                                    | Fairly often, frequently                              |
| Teachers ed.           | .12                         | -1.12                            | 52                                                    | 50-100% advanced                                      |
| Percentage White       | -.13                        | -.91                             | 58                                                    | 90-100%                                               |
| Advanced placement     | .12                         | -1.20                            | 56                                                    | No advanced placement                                 |
| Percentage, college    | -.18                        | -.89                             | 36                                                    | 30-49%                                                |
| Home support           |                             |                                  |                                                       |                                                       |
| Study aids             | -.21                        | -.82                             | 56                                                    | 3 or more                                             |
| Mothers aspirations    | .12                         | -1.32                            | 65                                                    | 4-year college                                        |

<sup>1</sup>Moment refers to the extent to which a subgroup may have contributed to the total decline in comparison to the other subgroups of that variable.

Table 7-6

Population Shift Effect, Subgroup Mean Change Effect, and Change in Moment<sup>1</sup>  
of Grouping Variables by IRT Mathematics Score

| <u>Variables</u>       | <u>Population Shift</u> | <u>Group Mean Change</u> | <u>Largest Change in Moment (percent)</u> | <u>Subgroup With Largest Change in Moment</u> |
|------------------------|-------------------------|--------------------------|-------------------------------------------|-----------------------------------------------|
| Demographic            |                         |                          |                                           |                                               |
| Sex                    | -.04                    | -.83                     | 55                                        | Male                                          |
| SES                    | -.11                    | -.81                     | 39                                        | Middle                                        |
| Race/ethnicity         | -.34                    | -.81                     | 74                                        | White students                                |
| Geographical region    | -.08                    | -.91                     | 59                                        | South                                         |
| Community type         | -.07                    | -1.09                    | 51                                        | Suburban                                      |
| Student behaviors      |                         |                          |                                           |                                               |
| Curriculum             | -.53                    | -.45                     | 51                                        | Vocational, general                           |
| Hours of homework      | -.25                    | -.59                     | 99                                        | Less than 5 hours                             |
| Educational plans      | -.09                    | -2.21                    | 38                                        | College                                       |
| Semesters, mathematics | .44                     | -1.73                    | 91                                        | 4 or fewer                                    |
| Semesters, science     | .05                     | -1.10                    | 101                                       | 4 or fewer                                    |
| Semesters, language    | -.13                    | -.90                     | 72                                        | 3 or fewer                                    |
| Athletic participation | .14                     | -1.15                    | 58                                        | Yes, participates                             |
| Attitude, academics    | -.33                    | -.74                     | 61                                        | Disagree with more emphasis                   |
| School characteristics |                         |                          |                                           |                                               |
| Public, nonpublic      | .04                     | -1.15                    | 97                                        | Public                                        |
| Projects used          | -.11                    | -.89                     | 68                                        | Never, seldom                                 |
| Essays used            | -.02                    | -.99                     | 56                                        | Never, seldom                                 |
| Teachers ed.           | .16                     | -1.19                    | 51                                        | 0-49% advanced                                |
| Percentage White       | -.20                    | -.80                     | 59                                        | 90-100%                                       |
| Advanced placement     | .22                     | -1.32                    | 61                                        | No advanced placement                         |
| Percentage, college    | -.29                    | -.77                     | 32                                        | 30-49%                                        |
| Home support           |                         |                          |                                           |                                               |
| Study aids             | -.34                    | -.68                     | 50                                        | 2 or fewer                                    |
| Mothers aspirations    | .21                     | -1.48                    | 73                                        | 4-year college                                |

<sup>1</sup>Moment refers to the extent to which a subgroup may have contributed to the total decline in comparison to the other subgroups of that variable.

Table 7-7

Largest Contributors for All Three Tests

| <u>Subgroup</u>                                     | <u>Apparent Reason</u>                                                                                                                     |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Middle SES                                          | Largest category and equal decline                                                                                                         |
| White students                                      | Largest category and largest decline                                                                                                       |
| Schools in South                                    | Largest category in 1980 and largest decline in reading and mathematics                                                                    |
| Suburban students                                   | Largest category and equal decline                                                                                                         |
| Vocational and general students                     | Large low-scoring group that increased in size                                                                                             |
| Students doing less than 5 hours homework           | Increasingly large group with larger decline                                                                                               |
| Students disagreeing with more academics            | High-scoring group declining in number and larger decline                                                                                  |
| Students taking fewer math courses                  | Overall increase in enrollments should have increased scores but "4 or fewer" group showed large score decline                             |
| Students taking fewer science courses               | Same as mathematics                                                                                                                        |
| Students taking fewer foreign language courses      | Increase in proportion of a low-scoring group                                                                                              |
| Students in public schools                          | Gain in proportion of high-scoring group (nonpublic students) should have increased scores but both public and nonpublic students declined |
| Students never or seldom doing projects or lab work | Increase in low-scoring group                                                                                                              |
| Students in schools without Advanced Placement      | Increase in schools offering AP should have increased scores but "No AP" group declined in scores                                          |



Table 7-7 (continued)

Largest Contributors for All Three Tests

| <u>Subgroup</u>                                               | <u>Apparent Reason</u>                                                                               |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Students with mother's wanting them to attend 4-year colleges | Increase in proportion should have increased scores but large score decline for 4-year college group |
| Schools predominantly White                                   | High-scoring group declining in number and showing larger score decline                              |

Largest Contributors for Vocabulary and Reading Only

|                                         |                                                                                                                                         |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Females                                 | Larger decline for larger group (but declined less in math)                                                                             |
| Students with more study aids in home   | High-scoring group declining in proportion                                                                                              |
| Schools used essays often or frequently | High-scoring group declining in proportion (and in all tests the "Never or seldom" group declined more in score)                        |
| Teachers' education more advanced       | Increase in proportion should have raised scores but students with more educated teachers declined more. Slight reversal in mathematics |

Other Possibly Large Contributors

|                                           |                                                                                                                                                                                          |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Educational plans                         | Small decrease in proportion of high-scoring college-bound group and small increase in lower scoring junior college group (many 1980 subjects omitted this item in the base year survey) |
| Athletic participation                    | Vocabulary and Reading: Nonparticipants declined more. Math: Participants declined more                                                                                                  |
| Percentage of graduates attending college | In general, gain in proportion of low-scoring schools with 30-49% attending college                                                                                                      |

In the first category of large groups there were the following:

Middle SES students

Suburban schools

Public schools

The results for these groups are of little interest. Of much more interest is the second category of groups that contributed to the score decline primarily because of a change in their proportional size from 1972 to 1980. This category includes:

Vocational and general students (increased greatly in number)

Students never or seldom doing projects or laboratory work  
(increased in number)

Students with more study aids in home (decreased in number)

Students planning college attendance (high-scoring group  
decreasing moderately in number)

Students in school with lower proportion attending college  
(lower scoring group increasing in number)

Students taking fewer foreign language courses (increased  
in number)

Students in predominantly White schools (high-scoring group  
decreasing in number)

The third category of large groups--some of which got larger--that exhibited large score declines includes:

Students doing less than 5 hours of homework each week

Students disagreeing that there should be more academic  
emphasis (but number of students wanting more academic  
emphasis increased in number)

Students taking fewer math courses

Students taking fewer science courses

White students (higher scoring group declining in number and  
also displaying larger declines)

Students in schools in the South

Students not taking Advanced Placement courses

Students in schools "never or seldom" using essays

Students with mothers wanting them to attend four-year colleges

Females (for vocabulary and reading only)

Males (for mathematics only)

Obviously, these observations suggest some general conclusions about the score decline, but we will withhold comment until after the results of the covariance analysis and the path analysis are presented.

In summary, score declines on all three tests were primarily the result of declines in subgroup mean scores, but, in some cases, population shifts contributed to or helped to resist these declines.

Score declines on all three tests were associated with population shifts in the curriculum, academic attitudes, study aids, and race/ethnicity variables. Population shifts associated with the semesters of mathematics, percentage of teachers with advanced degrees, availability of advanced placement courses, and the amount of education mothers wanted the students to obtain variables helped to resist score declines.

The largest changes in subgroup mean affecting all three tests were associated with the educational plans, semesters of mathematics, mother's educational aspirations for the student, and advanced placement variables. No variable had group mean changes which resisted score decline.

The subpopulations with the largest score changes on all three tests were White students, students doing less than five hours of homework a week, students taking four or fewer semesters of mathematics and of science, students who felt their schools should not have more academic emphasis, students in schools where projects/labs/essays were seldom or never used, students in schools 90 percent or more White and those which sent 50 to 69 percent of their students to college, students in schools that did not offer advanced placement courses, and students whose mothers wanted them to attend a four-year college.

## CHAPTER VIII

### PARTITIONING TEST SCORE CHANGES BY BLOCKS OF VARIABLES USING ANALYSIS OF COVARIANCE

Chapter VII describes the extent of the relationship between selected population and behavioral shifts to score decline. This type of analysis provides considerable detail about how classifying an individual on one or two variables at a time affects test score changes from 1972 to 1980. This procedure, however, does not lend itself to evaluating the impact of any one given variable or a set of variables while controlling for the effects of other numerous confounding variables. This section attempts to look at the relative impact of selected blocks of variables on the 1972-1980 mean score changes both before and after controlling for other confounding "blocks" of variables. The blocks differ with respect to whether they consist of variables that are: (1) responsive to educational policy (e.g., student behaviors and school characteristics), and/or (2) descriptive of either students, schools, or the home.

The four blocks of variables in this analysis include:

- |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Demographics:</u>                    | race, sex, family SES, region of the country and community type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <u>Student Behaviors and Attitudes:</u> | amount of homework, athletic participation, study habits, plans for higher education, number of semesters in selected subject matter areas, and type of program, e.g., academic, vocational or general.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <u>School Characteristics:</u>          | student self-reports yielded school means based on: condition of the buildings, library, quality of academic instruction, school reputation, teacher interest, amount of homework done, school's emphasis on academics, labs in courses, essays in courses, courses in subject matter areas, age of seniors, and ratings on employment counseling. School questionnaire data included percent of White teachers, percent of teachers with Master's or Ph.D., teacher turnover, dropout rate, percent of White students, percent of students in academic program, student-teacher ratio, availability of bilingual education, availability of advanced placement courses, school type, and size of senior class. |
| <u>Home Educational Support System:</u> | student self-report of parental influence on plans, father's educational level, mother's educational level, mother's educational plans for student, study aids available in the home.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

Similar to the previous section we would like to examine the relative influence of each of the above blocks of variables on test score decline. However, unlike the previous analysis, we would also like to get a "gross" estimate of each block's influence while controlling for the remaining blocks. The procedure used here will be a "step down" analysis of covariance where the primary outcome is the difference between covariate adjusted means. For example, if when controlling for the demographic block alone one can significantly reduce the difference between the two cohort means (i.e., reduce the mean score decline), then one could reasonably argue that changes in demographic makeup of students between 1972 and 1980 may indeed be contributing to the score decline. In a sense, the estimated reduction in the spread between the 1972 and 1980 means following adjustment for differences in demographic makeup is an estimate of the maximum impact of demographics on score decline since the remaining covariate blocks are not being considered. In order to arrive at an estimate of the unique contributions of the demographic block to 1972 to 1980 mean test score changes, one first compares the spread between adjusted means when all blocks are controlled for (full model) and then subsequently recomputes the adjusted means when the one block of interest is removed from the full model yielding a reduced model. Assuming that the assumptions of the analysis of covariance (ANCOVA) are reasonably met, then the differences between the two spreads, i.e., the difference between the spread of the reduced model and that of the full model, is an estimate of the block of interest's relative influence on the observed cohort mean differences while controlling for the other blocks.

This procedure is similar to defining unique partitions of the predictable variance in commonality analysis, but since it estimates adjusted means, it partitions score differences rather than variances. This approach also gives an indication of the direction of influence of the covariate blocks. That is, some blocks might be characterized by variables that may help resist the drop in scores. That is, if the behavior included in the block had not changed in the direction that they did, the score decline would have been even greater.

Table 8-1 below presents estimates of the maximum potential contributions of each block to either the decline or resistance to the decline in each of the three test score areas. These estimates of the reduction in mean spreads are maximum potential contributions since each block is treated separately without controlling for the remaining blocks.

Inspection of Table 8-1 indicates that controlling separately for the school characteristic and student behavior blocks leads to the larger reduction in the spreads between the 1972 and 1980 means. This suggests that other things being constant, if student behaviors or school characteristics had not changed between 1972 and 1980, the decline would be considerably smaller. This finding is particularly true for school characteristics.



Table 8-1

Differences between 1972-80 Senior Test Score Means  
When Each Block Is Separately Held Constant

|                                               | <u>Vocabulary</u>    |                          | <u>Reading</u>       |                          | <u>Math</u>          |                          |
|-----------------------------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|
| Observed Mean Decline (d)                     | .85                  |                          | 1.04                 |                          | 1.04                 |                          |
| Mean Decline or Increase after Adjusting for: |                      |                          |                      |                          |                      |                          |
|                                               | Change               |                          | Change               |                          | Change               |                          |
|                                               | <u>d<sup>1</sup></u> | <u>(d-d<sup>1</sup>)</u> | <u>d<sup>1</sup></u> | <u>(d-d<sup>1</sup>)</u> | <u>d<sup>1</sup></u> | <u>(d-d<sup>1</sup>)</u> |
| Demographics Only ...                         | .63                  | .22                      | .79                  | .25                      | .60                  | .44                      |
| Student Behaviors Only ...                    | .28                  | .57                      | .48                  | .56                      | .56                  | .48                      |
| School Characteristics Only ...               | .21                  | .64                      | .24                  | .80                      | .23                  | .81                      |
| Home Support Only ...                         | 1.06                 | -.21                     | 1.31                 | -.27                     | 1.45                 | -.41                     |

Note: d<sup>1</sup> = Expected decline after adjusting only for changes in individual block of variables.

d-d<sup>1</sup> = Net change, i.e., that part of the mean decline due to an individual block while ignoring the effects of the remaining blocks.

For a block to have the potential to contribute to the score decline, it must consist of variables that are primarily positively (negatively) related to tested achievement also positively (negatively) related to a "dummy" coded indicator of whether an individual is a member of the 1972 senior cohort (coded "1") or a member of the 1980 senior cohort (coded "0"). Significant variables in the student behavior block regression equation that fit this pattern are reported below.

That is, changes from 1972 to 1980 in individual student school behaviors that contributed most to the score decline were:

- o Taking less semesters of foreign language courses. This reduction was proportionately greater for females.
- o Spending less hours on homework. This reduction was proportionately greater for females.
- o Taking less semesters of science courses.
- o Less likely to be in the academic curriculum.



Similarly, changes from 1972 to 1980 in individual school characteristics that contributed most to the score decline, were:

- o An increase in the proportion of students rating the school as needing more academic emphasis.
- o A decrease in school means with respect to homework done by students.
- o A decrease in school means with respect to semesters of foreign language courses taken by students.
- o An increase in schools with a high dropout rate.
- o A decrease in school means with respect to laboratory courses taken by students.
- o A decrease in students' rating of their school's reputation in the community.
- o A decrease in students' rating of the quality of their academic instruction.
- o A decrease in students' rating of the physical condition of their school buildings.

Significant variables in the demographic block regressions were being White and coming from the Northeast.

It is interesting to note that when variation in the home educational support block is held constant, the spread between the adjusted means increases. This finding is suggesting that if the home environment had not changed between 1972 and 1980 in a positive direction the declines would have been even greater. That is, the means on those variables in the home educational support block that were most highly correlated with achievement tended to go up from 1972 to 1980. Both parents' education and mother's educational plans for the child's education tended to increase from 1972 to 1980. Among the variables in this block, these three had the highest relationship with the achievement test scores.

Another way of looking at this approach to estimating the relative influence of blocks as either contributing or resisting score decline is to think of it as predicting achievement (e.g., vocabulary) from the variables within a block within each cohort using the pooled within group regression weights and then getting the 1972 and 1980 senior cohort means on the predicted scores. If the 1972 mean is higher than the 1980 mean and the variables that get the biggest positive weights in the regressions are positive student behaviors (e.g., in the student block) or positive school characteristics (in the school block), then it would appear that changes from 1972 to 1980 in student or school behaviors have contributed to the decline. If the predicted cohort means are in the opposite direction (i.e., 1980 higher than 1972), then we would expect this direction of

change in behavior to resist any decline (e.g., the home support block). The covariance adjustment in Table 8-1 for the home educational support block suggests that if there had not been a change from 1972 to 1980 in the direction of increased home educational support, the decline would have been greater than the observed .85; more like 1.06.

As indicated above, the estimates of the relative contribution of each block to the decline (or to resisting the decline) are likely to be overstated unless one estimates the impact of a given block on the tested achievement while controlling for the remaining blocks.

Figure 8-1 presents an estimate of the relative contributions of each block to the decline while controlling for the remaining blocks. These estimates are simply the difference between the covariance adjusted means for the full model (all blocks as covariates) and that of the reduced model where one block has been removed. For example, the impact of the demographic block on the vocabulary score decline is estimated in the following way. The difference between adjusted means for the full model (all blocks as covariates) is subtracted from the difference between adjusted means for the reduced model. In the case of vocabulary we have the difference between adjusted means for the reduced model (.16) minus the difference between the adjusted means for the full model (.09) yielding .07 of a test score point as an estimate of the impact of changes in demographics on the score decline while controlling for the remaining blocks of variables. As in commonality analysis, the partitions of score point differences attributable to each block will not, in general, add up to the observed mean differences. The partitions by block do, however, give one a rough estimate of the relative importance of each block in contributing or resisting the score decline. A technical note describing the computations in more detail may be found in Appendix E. Appendix E also shows the structure coefficients indicating the important variables in each block.

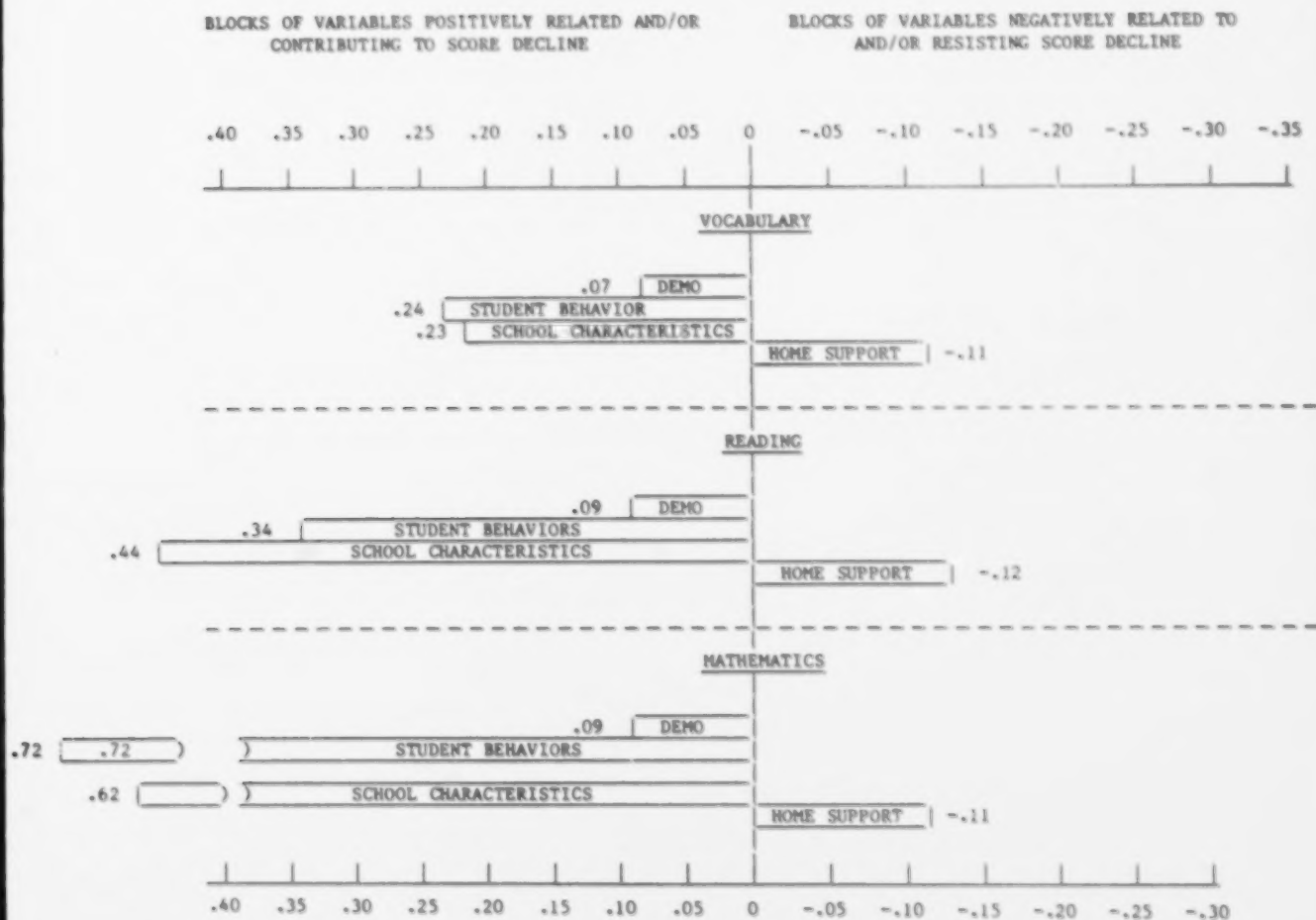
The negative numbers associated with the home educational support system suggest that changes in variables in this block from 1972 to 1980 are in the direction of resisting score decline. This effect is relatively constant for all three tested achievement areas. The effect of changes in demographics from 1972 to 1980 have a consistent but relatively small impact in the direction of contributing to the score decline. Compared to changes in demographics and home educational support systems, changes from 1972 to 1980 in student and school characteristics have considerable impact in the direction of contributing to score decline.

This is true for reading and even more so for mathematics. In the case of mathematics, school characteristics and student behaviors are roughly seven to eight times more important than are changes in demographics with respect to contributing to score decline.

The relatively greater impact of student academic behavior and school characteristics on reading and especially mathematics is consistent

Figure 8-1

ADJUSTED MEAN DIFFERENCES FOR 1972-1980 TEST SCORES BY SELECTED BLOCKS OF EXPLANATORY VARIABLES



with what one would expect since gains or losses in these achievement areas would appear to be more sensitive to formal schooling.

While the above approach does yield rough but seemingly not unreasonable estimates of the relatively unique impact (and direction) of logical blocks of explanatory variables on 1972-1980 achievement changes, one must be cautious when interpreting the adjusted mean differences from any analysis of covariance in a nonexperimental situation. In particular, the assumptions of homogeneity of achievement covariate regressions probably do not hold, but it is expected that the main effects are large compared to the interactions. The next section which attempts to estimate and compare path models underlying achievement separately for 1972 and 1980 suggests that indeed there is some interaction between 1972 and 1980 and achievement-covariate relationships. These interactions are, however, generally small compared to the main effect and are always ordinal.

Another potential pitfall of the above methodology is the reliance on differences between adjusted means for interpretation of the relative sizes of the effect associated with a particular block. The difference between adjusted means is, of course, simply estimated by a partial raw score regression coefficient while holding constant numerous other variables in the system. All the problems of colinearities and the accompanying instability in the particular regression coefficient defining the adjusted means are also present. It is hoped that these types of problems are somewhat alleviated by the large sample size within each cohort.

## CHAPTER IX

### PATH ANALYSIS

The earlier section dealing with population shifts and mean changes within populations indicated that while the score decline cut across almost all groups of individuals, it appeared to be larger for White individuals in vocabulary, reading, and mathematics and females in vocabulary and reading. In an effort to see if race, sex and SES subgroups appeared to go through a somewhat different educational process in 1980 from their counterparts in 1972, three path models were constructed--one for each outcome variable. The three final outcome variables were vocabulary, reading, and mathematics scores. The three path models shared the same assumed causal chain but differed in the final dependent variable and one intermediate educational process variable. The intermediate process variable that was varied depending on the outcome was "number of semesters of language courses," which was used for the vocabulary and reading outcomes and "number of semesters of mathematics," which served the same role for the mathematics achievement outcome.

Figure 9-1 presents the path model that was assumed to underly the process in vocabulary achievement. The path models investigate how membership in those groups showing the greatest declines may differ in selected educational processes from those who showed lesser declines. It also yields the net effect of being in these groups on the achievement outcomes. That is, the effect of group membership on the achievement outcomes while controlling for all variables in the model. The finding of a diminishing effect on achievement outcomes in 1980 compared to 1972 for minority, SES, or sex group membership could point to possible change in the educational process towards emphasizing equality of educational outcomes.

The path coefficients or regression weights in Figures 9-1 - 9-3 are raw score regression weights since the model compares path coefficients across populations. The usual standardized path coefficients would be inappropriate for cross population comparisons because of their sensitivity to sample differences in variability. The 1972 and 1980 estimates of the effect of the variable at the tail of the arrow on the variable at the head of the arrow are shown as pairs with the 1980 estimates in parentheses. Arrows are only present in the Figure if either the 1972 or 1980 coefficient or both are at least twice their standard errors. Where the comparable 1972 and 1980 path coefficients differ by as much as four pooled standard errors an asterisk is placed along side. This conservative approach reduces the possibility of presenting many relatively trivial effects and is consistent with the average design effects for the 72 and 80 cohorts.

Two of the intermediate dependent variables, attendance at a private school and membership in the academic curriculum, are dichotomous and as a result do not meet the assumptions of ordinary least squares (OLS)

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Figure 9-1. Hypothesized Path Model to Explain Vocabulary Achievement

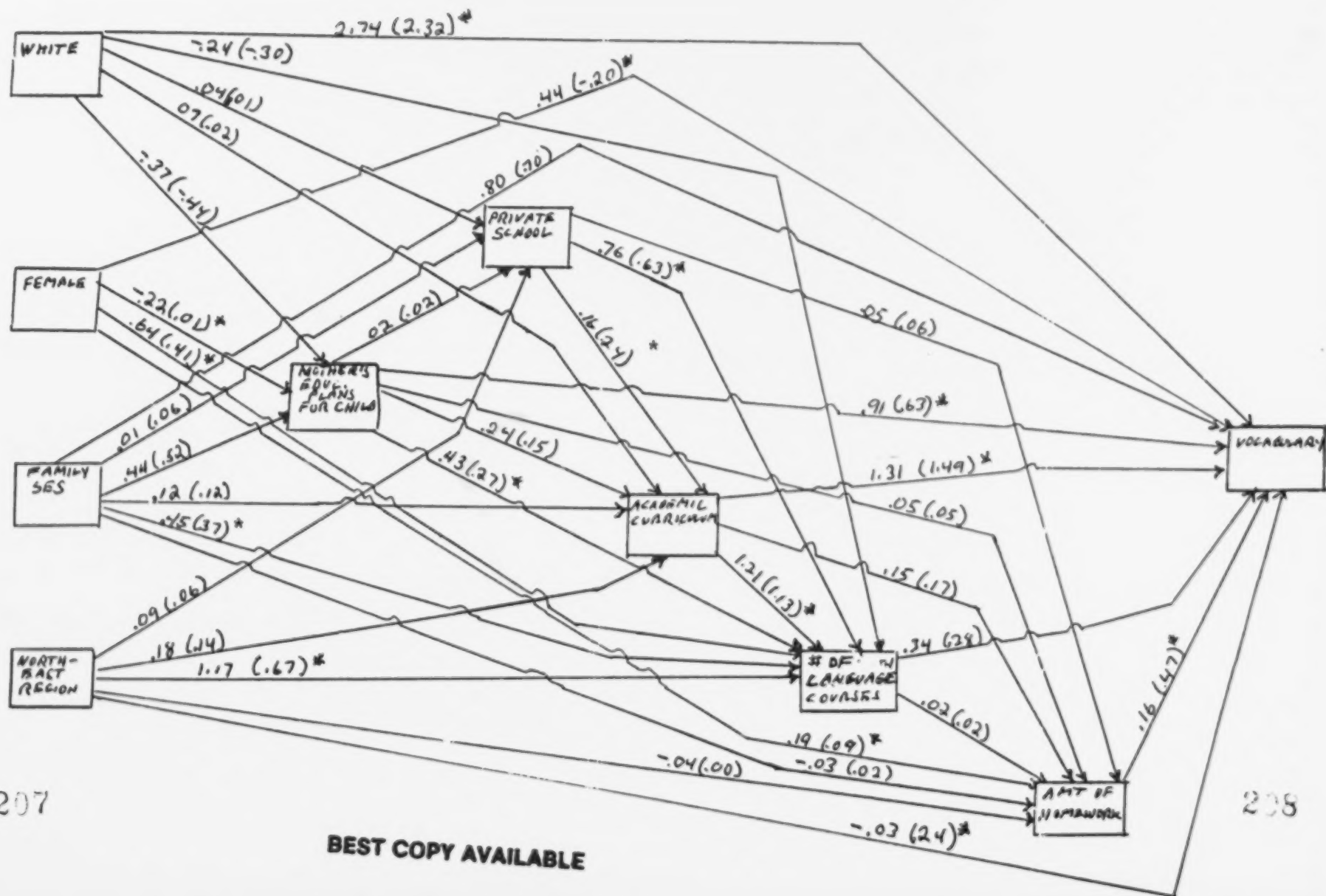




Figure 9-2. Hypothesized Path Model to Explain Reading Achievement

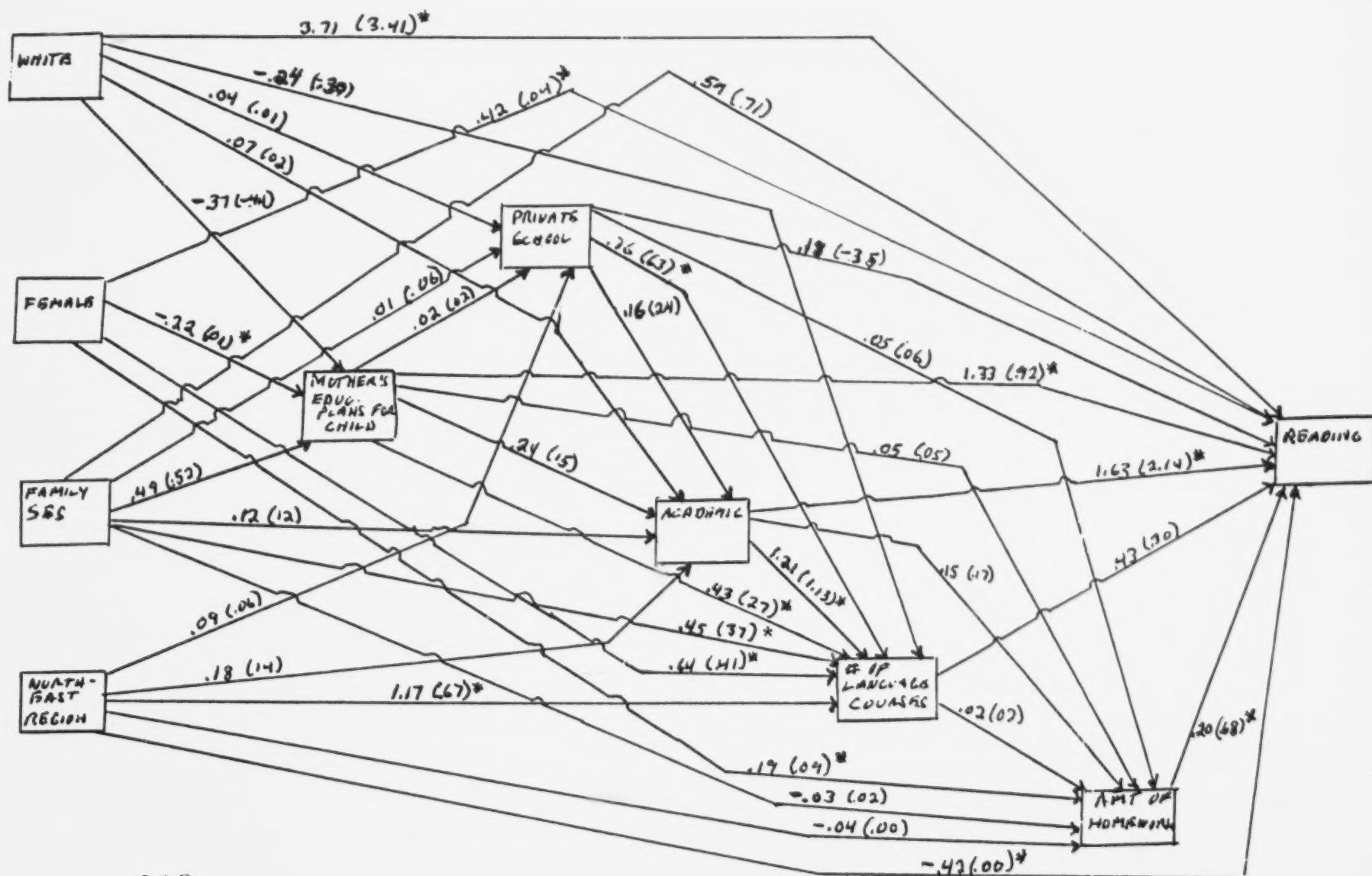
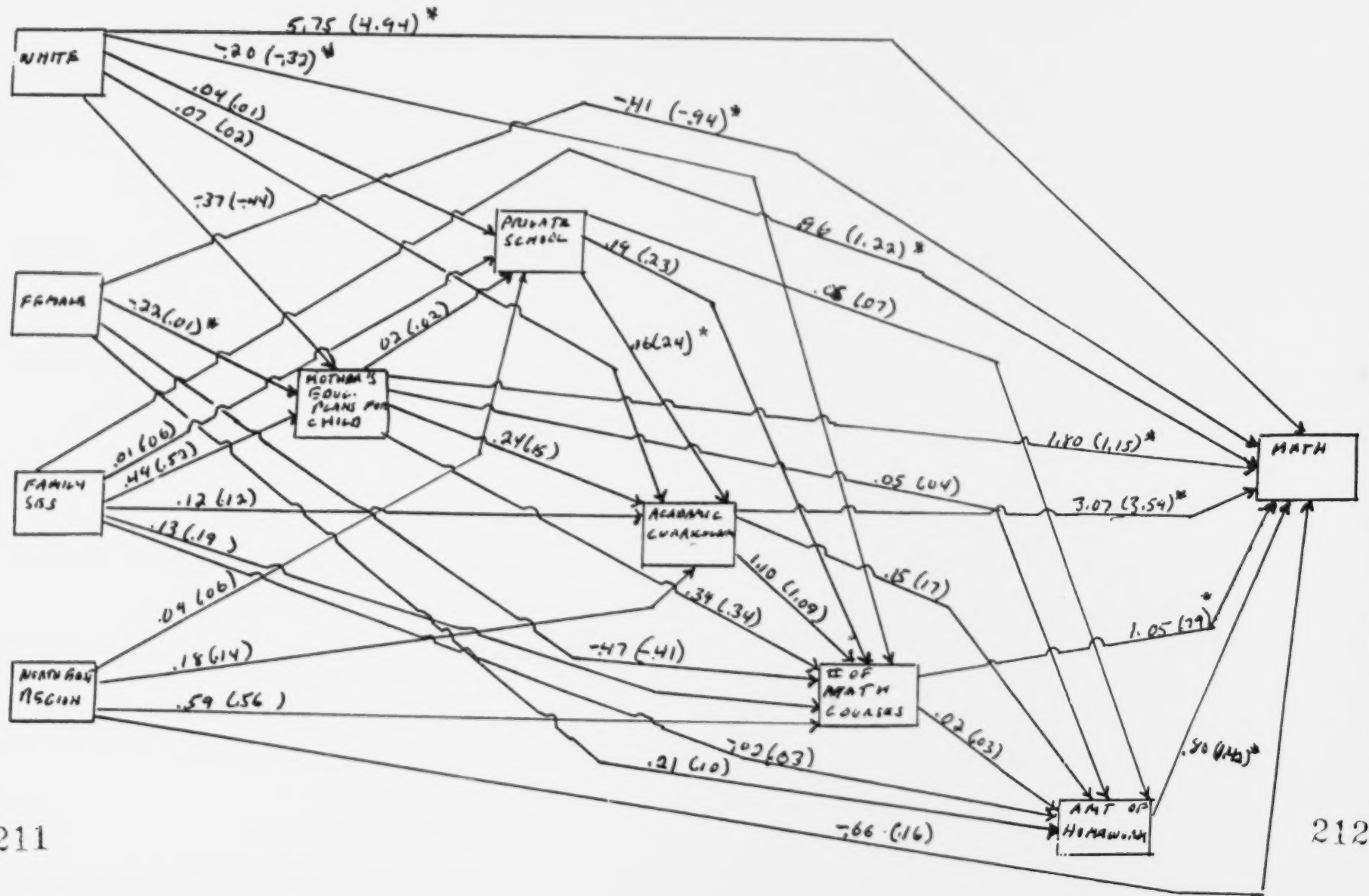


Figure 9-3: Hypothesized Path Model to Explain Mathematics Achievement



estimation. Estimates based on ordinary least squares were used, however, since the computer programs available for the preferred technique (logistic regression) do not readily handle either missing data or sample weights. It has been our experience that in the case of large samples the OLS estimates of effect size are reasonably close to those of the logistic regression and the potential for bias lies in the tendency of OLS to underestimate the size of the coefficient's standard error. With that in mind we will be cautious in our interpretations of effect sizes of variables assumed to be explanatory variables for these two outcomes.

#### A. DETERMINANTS OF MOTHERS' EDUCATIONAL ASPIRATION FOR THE CHILDREN

Mothers' educational aspiration was predicted reasonably well by the demographic explanatory variables. The multiple correlation was .42 in 1972 and .39 in 1980. Inspection of Figure 1 indicates that after controlling for SES, mothers of non-White students tend to have considerably more ambitious educational plans for their daughter or son. In addition, there is a suggestion that this differential aspiration in favor of non-Whites increases from 1972 to 1980. In 1972 mothers tended to have significantly higher educational aspirations for their sons than for their daughters as indicated by the sign and relative size of the path coefficients. However, in 1980 the mothers' aspirations were essentially independent of the child's sex. The asterisk indicates that the 1972 and 1980 path coefficients are at least four standard errors apart for the sex group effect on mothers' aspirations. The relationship of SES to mothers' plans remained high but relatively stable from 1972 to 1980.

#### B. DETERMINANTS OF PRIVATE SCHOOL ATTENDANCE

The hypothesized model was unable to predict with any accuracy whether or not the student attended a private school. That is the multiple R was .20 in HS&B and .18 in NLS. The inability to predict attendance at a private school was probably due to the fact that private schools were a relatively heterogeneous lot, being a mixture of both private non-Catholic and Catholic schools.

#### C. CHOOSING THE ACADEMIC CURRICULUM

Choosing the academic curriculum was predicted reasonably well,  $R = .47$  and  $.52$  in HS&B and NLS cohorts, respectively. Explanatory variables that were positively related to selecting the academic curriculum were attendance at a private school, mothers' educational plans for the offspring, family SES and living in the Northeast region of the country. There is some indication that being in a private school had a stronger relationship with being in the academic curriculum in 1980 than it did in 1972. This is probably not the whole story, however, since the earlier analysis of population shifts suggest that there were proportionally bigger shifts of students from academic to vocational and general curricula in the public schools than in the private schools

during this period. It is interesting to note that sex group membership was independent of choice of the academic curriculum in both 1972 and 1980. This is indicated by the lack of arrows from sex group membership to curriculum choice.

#### D. NUMBER OF SEMESTERS OF LANGUAGE COURSES

This process variable was chosen for inclusion in the model because of its potential relationship with achievement in both verbal skills--vocabulary and reading. In addition, because of its potential critical nature in the development of the verbal skills, it might help to explain the greater vocabulary score decline that was found for females than for males. The multiple correlation between the hypothesized explanatory variables and semesters of language courses was .57 in 1972 and .48 in 1980. The path coefficients defining female vs. male contrasts seem to support the notion that females were less likely in 1980 than in 1972 to be taking language courses. The female-male contrast path coefficient indicates that on the average, females still take more semesters of language courses than do males, but the difference appears to be diminishing. This finding may reflect a new awareness among female students and a "turning away" from traditional female curricula (e.g., language and literature) to the more male-oriented courses.

There is an indication that SES's relationship with number of language courses is somewhat more attenuated in 1980 than in 1972. Similarly, students from the Northeast region showed a considerable drop in their relative advantage over the other regions in their study of language. Significant drops between 1972 and 1980 in the relationship between being in the academic curriculum and taking language courses also occurred. Mothers' educational plans also had a smaller albeit still positive effect on the taking of language courses.

#### E. AMOUNT OF HOMEWORK

The amount of homework done reported by the student was only modestly explained by the model. The multiple correlation was .36 and .32 in the HS&B and NLS cohorts, respectively. With the exception of the female-male contrast, the remaining explanatory variables had stable, although relatively weak relationships with the amount of homework they reported doing. Consistent with the pattern of some of the earlier reported female-male contrasts, the females advantage over males with respect to the amount of homework done decreased significantly from 1972 to 1980. It would appear that the greater observed score decline among women as compared to men is consistent with the school behavior patterns highlighted in the path models.

#### F. SEMESTERS OF MATHEMATICS COURSES

The more relevant academic process variable for mathematics achievement is number of semesters of mathematics courses. Thus, in Figure 9-3 where mathematics achievement is the primary outcome, we have replaced number of language courses with number of mathematics courses.



The non-White students, compared to Whites, increased the differential in their favor with respect to number of semesters of mathematics when going from 1972 to 1980. Although women are still taking significantly less math courses than men, they showed a slight decrease in this differential when going from 1972 to 1980. All the other explanatory variables had relatively stable relationships with this outcome when going from 1972 to 1980.

#### G. DETERMINANTS OF TESTED ACHIEVEMENT

Because the contrasts between what are the important determinants of achievement in each test are of considerable interest, all three achievement outcomes and their determinants will be discussed together. Table 9-1 summarizes the direct effects of major explanatory variables on test outcomes.

Inspection of the determinants of vocabulary, reading, and mathematics achievement (Figure 9-1) shows a significant reduction in the gap between White and non-White achievement, while controlling for all other variables in the model as one goes from 1972 to 1980. This is consistent with other recent findings (Jones, 1984). It is also consistent with the direction of changes in other educational process variables. While the 1972 to 1980 measured changes in the educational behavior pattern of the non-Whites are not statistically significant by the four standard error criteria, their pattern taken as a whole is certainly consistent with the finding that the White/non-White achievement gap is narrowing. For example, the differential in favor of Whites decreased with respect to attendance at private schools (differences in favor of whites went from 4 percent in 1972 to 1 percent in 1980) when controlling for other confounding variables. The path coefficient indicates that the gap in favor of non-Whites with respect to mothers' educational plans increased in 1980. Conversely, the gap in favor of Whites with respect to the selection of academic curriculum also was reduced by 1980. The non-whites also increased the differential in their favor with respect to the number of language courses taken as one goes from 1972 to 1980. This increase in differential is even more notable in the case of self-report of the number of mathematics courses (see Figure 9-3). There was, however, no difference in the amount of homework reported by Whites and non-Whites. One should keep in mind that these changes in a positive direction, both in intermediate and final outcomes, are (path coefficients) in a model where other demographic variables are being held constant. That is, when we hold constant critical variables such as SES we notice that non-Whites are more likely than Whites to change their educational behavior in a direction to resist score decline.

An important determinant of achievement in all three areas was being in the academic curriculum. That is, when controlling for all other variables in the model being in the academic curriculum leads to the greatest increment (with the exception of race) in one's tested achievement. In addition, the impact of being in the academic curriculum increases as one goes from 1972 to 1980. Membership in the academic curriculum not only has both this large direct effect on achievement, but

Table 9-1

1972-80 Contrasts of the Direct Effects of Major Explanatory  
Variables on Test Outcomes

|                                                                                                   | Vocabulary  |             | Reading     |             | Mathematics |             |
|---------------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                                                                                   | <u>1972</u> | <u>1980</u> | <u>1972</u> | <u>1980</u> | <u>1972</u> | <u>1980</u> |
| Race/Ethnicity<br>(White = "1"<br>Others = "0")                                                   | 2.74        | (2.32)*     | 3.71        | (3.41)*     | 5.75        | (4.94)*     |
| Curriculum<br>(Academic = "1"<br>Others = "0")                                                    | 1.31        | (1.49)*     | 1.63        | (2.14)*     | 3.07        | (3.54)*     |
| Mother's Educational<br>Plans for Child                                                           | .91         | (.63)*      | 1.33        | (.92)*      | 1.80        | (1.15)*     |
| SES                                                                                               | .80         | (.70)       | .59         | (.71)*      | .96         | (1.22)*     |
| Sex<br>(Female = "1"<br>Male = "0")                                                               | .44         | (-.20)*     | .42         | (.04)*      | -.41        | (-.94)*     |
| Number of Related<br>Courses                                                                      | .34         | (.28)       | .43         | (.30)       | 1.05        | (.79)*      |
| Amount of Homework<br>("1" = 5 or more<br>hours per week,<br>"0" = less than<br>5 hours per week) | .16         | (.47)*      | .20         | (.68)*      | .80         | (1.42)*     |

\*Indicates that the 1972 to 1980 comparison of direct effects differ by four pooled standard errors.



also has an indirect effect on achievement in that those students in the academic curriculum take more critical subject matter courses (math and languages) and do more homework both of which, in turn, have significant impacts on all three tested achievement areas.

Achievement mean score differences between males and females also changed between 1972 and 1980. Accompanying these female-male changes in achievement were some sex group-related changes in their school-related behavior. That is, while females showed greater decline than did males in both the vocabulary and reading achievement areas, they also showed a greater decline than males in the amount of homework that they reported doing. Females showed a proportionately greater decline than males in the number of language courses taken. Curiously enough, the gap between males and females is somewhat reduced with respect to the number of mathematics courses taken as one goes from 1972 to 1980. This may reflect a general trend in that females appear to be moving from the historically more female-oriented courses (e.g., literature and languages) to the more male-oriented science and mathematics courses.

The male/female gap in mathematics achievement grew larger in 1980, however, even after controlling for the number of courses taken. While females report taking more courses, the data do not allow one to determine the level and/or quality of these courses. It may be that females are either enrolling in the lower level mathematics courses and/or are taking the more occupationally-related math courses. It also may be partly artifactual in that coursework was based on student responses in 1980 and the Survey Administrator's Report in 1972. As indicated earlier, Fетters et al. (1984) has shown that students tend to over-report their coursework.

The fact that the path coefficient from number of semesters of mathematics courses to mathematics achievement shows a significantly smaller effect in 1980 suggests that while students may be taking more math courses in 1980 than in 1972, they may be indeed nonacademically-oriented math courses and therefore the finding of less relationship with tested math achievement.

While the average amount of homework done decreased from 1972 to 1980, its impact on achievement increased. It would seem that those seniors in 1980 who were willing to put in the effort were more than repaid for their effort.

The question as to whether the educational system was more or less equitable in 1980 compared to 1972 is somewhat of a "mixed bag." That is, while the White/non-White gap decreased one's family SES level had a bigger effect on tested achievement in both reading and mathematics achievement in 1980 compared to 1972. Also, other things being equal, the gap in tested achievement between students in the academic curriculum and those in the other curricula increased from

1972 to 1980 in all three basic skills areas. This increase in the gap is particularly noteworthy in mathematics and reading which, in turn, are more likely to be sensitive to formal educational training. Are those individuals in vocational and general programs in 1980 receiving either less or inferior coursework in the basic skills areas than they did in 1972? If so, then the 1972-1980 population shift from academic to vocational and general curricula has very serious consequences with respect to allowing young adults to achieve their full potential in reading and computation. Another possibility is that the marginal ability students have a greater likelihood of being in the general and vocational programs in 1980 than in 1972.

One other curious result in the path analysis is that mothers' educational plans for the child are less related in 1980 than in 1972 to the normal consequences, e.g., being in the academic curriculum, number of language courses, and tested achievement in all three basic skills areas. It may be that mothers in 1980 are less likely to view the traditional academic "paths" as necessary for continuing on in higher education. Part of this may reflect the fact that post-high school educational institutions, in particular junior colleges, provide an increasingly greater array of non-academic curriculum choices. Similarly, the course requirements of many four-year colleges may have "softened." It also may reflect the general economic climate and consequently the view that the college graduate who isn't trained in specific job relevant skills may be in less demand.

## CHAPTER X

### SUMMARY AND POLICY IMPLICATIONS

In 1983, eight major national studies reported on the status of public education in the United States. These reports sounded a common theme: The American educational system is in trouble. The major evidence cited in support of this claim was that academic achievement, as measured by performance on the College Board's Scholastic Aptitude Tests and the National Assessment of Educational Progress, had declined. This situation was attributed to demographic changes, lower standards, lower expectations for students, a less rigorous curriculum, and the poor academic preparation of new teachers.

This study documented a similar decline in the academic achievement of high school seniors between 1972 and 1980. It found, however, that the major factor contributing to changes in the vocabulary, reading and mathematics test scores of these students was a decreased academic emphasis in the educational process. Shifts in population demographics from 1972-1980 played a minor role in explaining test score decline.

#### A. SUMMARY OF STUDY FINDINGS

The study findings show that there were significant changes in test scores, in high schools, and in student behavior. They also show that these changes were interrelated.

##### 1. Test Score Change

There were declines on all three achievement tests between 1972 and 1980. The largest declines occurred in vocabulary and reading. The average senior in 1980 (a student at the 50th percentile in 1980 in vocabulary and reading achievement) would rank at about the 41st percentile among the 1972 seniors in both vocabulary and reading. Similarly, a 1980 senior with average mathematics achievement in 1980 would be at the 45th percentile when compared with the 1972 seniors. When these changes are measured in standard deviation units, the declines are .22 for Vocabulary, .21 for Reading, and .14 for Mathematics, indicating a greater decline in verbal than in quantitative skills.

a. Vocabulary. Females showed a greater decline than males on the Vocabulary test. Whites showed greater declines than Blacks and Mexican-Americans, but these comparisons may be confounded by test score floor effects. The decline for Whites was relatively pervasive, cutting across SES levels, geographic regions, curriculum type, and school type (public vs. Catholic).

b. Reading. The decline in Reading test scores tended to be somewhat more consistent across subpopulations than the Vocabulary test scores. Declines were relatively consistent across sex, SES, curriculum

type, and school type, but Whites showed a greater decline than Blacks or Mexican-Americans. The Reading test score declines were found primarily among students who reported doing less than five hours of homework per week.

c. Mathematics. The decline in Mathematics test scores was slightly larger for males than for females and larger for Whites than for other racial/ethnic groups. Blacks showed a small, but not statistically significant, increase in Mathematics test scores. The Mathematics test score declines were found primarily among students who reported doing less than five hours of homework per week. Females and Blacks who reported doing more than five hours of homework per week showed significant increases. The largest score decline was among male students who took four or fewer semesters of mathematics and/or science.

d. Comparison with SAT Score Decline. SAT scores for men and women declined in a somewhat similar pattern in the same time period. As shown in Table 10-1 below, men had a slight lead in SAT verbal scores (454 vs. 452) and a large lead in SAT math scores (505 vs. 461) in 1972. Between 1972 and 1980, the women declined somewhat more than the men on both scales, increasing the discrepancy between men and women.

Table 10-1

SAT Test Score Changes, 1972-1980

|        | <u>Verbal</u> |             |              |                                     | <u>Mathematics</u> |             |              |                                     |
|--------|---------------|-------------|--------------|-------------------------------------|--------------------|-------------|--------------|-------------------------------------|
|        | <u>1972</u>   | <u>1980</u> | <u>Diff.</u> | <u>Change<br/>in S.D.<br/>Units</u> | <u>1972</u>        | <u>1980</u> | <u>Diff.</u> | <u>Change<br/>in S.D.<br/>Units</u> |
| Male   | 454           | 428         | -26          | -.23                                | 505                | 491         | -14          | -.12                                |
| Female | 452           | 420         | -32          | -.29                                | 461                | 443         | -18          | -.17                                |

2. Changes in the Characteristics of High School Seniors and Their Schools

There were significant changes from 1972-1980 in the characteristics of high school seniors, their homes and families, the schools they attended, and their attitudes and behaviors.

- o The 1980 seniors were more likely to be members of a minority group and from the South than were the 1972 seniors. Females constituted a slightly larger proportion of the 1980 seniors than the 1972 seniors.
- o There was a significant increase in the mean level of parental education from 1972 to 1980, but there was relatively little difference in fathers' occupations in 1972 and 1980.

- o Mothers of 1980 senior women had higher educational aspirations for their daughters than did the mothers of 1972 senior women. Aspirations for senior men remained unchanged.
- o There were fewer study aids in the homes of 1980 seniors than in the homes of 1972 seniors.
- o More seniors were enrolled in the general or vocational curriculum in 1980 than in 1972, while fewer students were enrolled in the academic curriculum. In addition, seniors took fewer semesters of social studies, science and foreign languages in 1980 than in 1972, but more semesters of mathematics.
- o Seniors reported doing less homework in 1980 than in 1972. The estimated decline was from approximately 4.55 hours of homework per week in 1972 to 4.05 hours in 1980.
- o The attitudes and values of high school seniors also changed between 1972 and 1980. Interest in correcting social and economic inequities declined, while interest in making money and in job success increased. Students became more self-confident between 1972 and 1980 but less sure of their ability to control the course of their own lives.
- o There were also increases, between 1972 and 1980, in the number of schools with high dropout rates and in the proportion of schools reporting a majority of their students in the general curriculum. Students' ratings of the quality of their schools' facilities, academic instruction and reputation dropped.

### 3. Factors Affecting Test Score Change

A "step down" analysis of covariance was used to estimate how 1972-1980 changes in population demographics, student behavior, school characteristics and home educational support systems separately affected the average score decline. Path analysis was employed to ascertain if certain subpopulations, which were characterized by larger declines, might have experienced different educational processes in 1972 than their counterparts in 1980.

The results show that:

- o Shifts in population demographics from 1972 to 1980 were a minor factor contributing to the score decline.
- o Changes from 1972 to 1980 in student school behaviors and in school characteristics played the major roles in the score decline. This finding was consistent across all three tested achievement areas.



- o Student's school behaviors and school policies contributed equally to the vocabulary score decline.
- o School characteristics played a somewhat larger role than did students' school behaviors in the reading score decline.
- o Conversely, students' school behaviors played a slightly greater role than did school characteristics in the mathematics score decline.
- o Changes from 1972 to 1980 in the home educational support system were in a direction that would resist score decline. However, the magnitude of the effects of changes in home educational support were small compared to student and school characteristics.

Changes from 1972 to 1980 at both the school level and student level that seem to have contributed most to the decline were: (1) a greater likelihood of being in the general or vocational curriculum rather than the academic curriculum, (2) a drop in the frequency with which students report taking "traditional" college preparation core courses such as foreign languages, science and/or courses requiring laboratory work, (3) a decrease in the amount of homework done, and (4) an increasing dissatisfaction among the students with the lack of emphasis on academics in the schools.

#### B. POLICY IMPLICATIONS

The national reports issued last year contained a wide range of recommendations designed to strengthen the educational process. They addressed school curriculum, programs for special populations, college entrance requirements, performance standards for students, training of teachers, administrative leadership, fiscal support, and the proper role of local, state and federal governments. Many states have responded to these recommendations by raising high school graduation requirements and/or college admission standards, requiring more testing of students, and changing policies on the preparation and licensing of teachers. The findings of this study support the appropriateness of many of these policy recommendations.

##### 1. Curriculum

The National Commission on Excellence in Education recommended that students devote significantly more time to the "New Basics"--English, mathematics, science, social studies, computer sciences and, for the college-bound, a foreign language. This study suggests that more coursework in science, foreign languages and mathematics contributes to higher scores on the kinds of vocabulary, reading and mathematics skills measured by the NLS/HS&B test battery. However, policymakers must be sensitive to differences in course-taking behavior among curricula. The course-taking patterns of students in the academic curriculum showed little change between 1972 and 1980. But a significant number of students shifted into



the general and vocational curricula, where they took fewer New Basics than their academic counterparts. Therefore, we suggest that schools increase the required number of courses in the New Basics for non-academic students. However, these courses should not be provided at the expense of remedial work in reading and mathematics when it is needed. In addition, schools should provide more frequent opportunities for students to write and more opportunities for students to participate in laboratory courses.

## 2. Course Content

Several commissions recommended that the content of textbooks and instructional materials be made more academically demanding. Since students in all curricular areas in this study were critical of the lack of academic emphasis in their coursework and of the quality of their academic instruction, we suggest that course content and instructional methods be reviewed and upgraded, as necessary, to insure more rigorous content.

## 3. Homework

Several reports recommended that homework be required regularly of all students, and many school districts have implemented homework policies. Students in this study reported doing less homework in 1980 than in 1972, but students in the general and vocational curricula did less homework and showed greater test score declines than those in the academic program. Since there was a strong positive relationship between homework and achievement in all three tested areas, we concur that appropriate amounts of homework be assigned in all courses.

## 4. Programs for Special Populations

Many of the national studies stated that the Federal government, in cooperation with the states and local school districts, should continue to provide special programs for educationally and economically disadvantaged students, the handicapped, and language minority students. This recommendation is critical since a growing body of data have documented the relative improvement in achievement of Blacks and other disadvantaged students over the last decade. For example, test score declines for Blacks in this study were considerably below those of White students. This was particularly true of low SES Black students, the most likely beneficiaries of federal and state compensatory education programs. Similar findings were reported by the National Assessment of Educational Progress in an analysis of changes in the reading and mathematics achievement of 17-year-old students during the 1970s.

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APPENDIX A

Items Common to the 1972 and 1980  
Student Questionnaires

APPENDIX A

Table 1

ITEMS COMMON TO THE 1972 AND 1980 STUDENT QUESTIONNAIRES

| VAR#                                                                    | LABEL    | DESCRIPTION                            | RESPONSE CODES (CONVERTED)                                                                 | NLS                          | HSB #0                                 |
|-------------------------------------------------------------------------|----------|----------------------------------------|--------------------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| 2                                                                       | MSGRADES | GRADES IN HIGH SCHOOL                  | 8=MOSTLY A'S; 7=A/B; 6=MOST B;<br>5=B/C; 4=MOST C; 3=C/D; 2=D;<br>1=BELOW D; MISSING=BLANK | 229 809                      | 85 88007                               |
| 3                                                                       | HOMWORK  | TIME/WEEK SPENT ON HOMEWORK            | 1=0-5 HRS.; 2=5-10 HRS;<br>3=10+ HRS; MISSING=BLANK                                        | 235 807                      | 128 88019                              |
| HAVE YOU PARTICIPATED IN THE FOLLOWING ACTIVITIES                       |          |                                        |                                                                                            |                              |                                        |
| 4                                                                       | PART-ATH | PARTICIPATE IN ATHLETICS               | 0=NO; 1=YES; ACTIVE OR LEADER                                                              | 241 8010A                    | 163 88032A<br>164 88032B               |
| 5                                                                       | PART-CHR | PARTICIPATE IN CHEERLEADING            | 0=NO; 1=YES; ACTIVE OR LEADER                                                              | 242 8010B                    | 165 88032C                             |
| 6                                                                       | PART-DEB | PARTICIPATE IN DEBATING, MUSIC         | 0=NO; 1=YES; ACTIVE OR LEADER                                                              | 243 8010C                    | 166 88032D<br>167 88032E<br>168 88032F |
| 7                                                                       | PART-HOB | PARTICIPATE IN HOBBY CLUBS             | 0=NO; 1=YES; ACTIVE OR LEADER                                                              | 244 8010D                    | 169 88032G                             |
| 8                                                                       | PART-HON | PARTICIPATE IN HONORARY CLUBS          | 0=NO; 1=YES; ACTIVE OR LEADER                                                              | 245 8010E                    | 170 88032H                             |
| 9                                                                       | PART-NWS | PARTICIPATE IN NEWSPAPER, YEARBOOK     | 0=NO; 1=YES; ACTIVE OR LEADER                                                              | 246 8010F                    | 171 88032I                             |
| 10                                                                      | PART-SBJ | PARTICIPATE IN SUBJECT MATTER CLUBS    | 0=NO; 1=YES; ACTIVE OR LEADER                                                              | 247 8010G                    | 172 88032J                             |
| 11                                                                      | PART-GOV | PARTICIPATE IN STUDENT GOVERNMENT      | 0=NO; 1=YES; ACTIVE OR LEADER                                                              | 248 8010H                    | 173 88032K                             |
| 12                                                                      | PART-VOC | PARTICIPATE IN VOC ED CLUBS            | 0=NO; 1=OVS; ACTIVE OR LEADER                                                              | 249 8010I                    | 174 88032L                             |
| HOW MUCH HAS EACH OF THE FOLLOWING INFLUENCED YOUR PLANS FOR AFTER H.S. |          |                                        |                                                                                            |                              |                                        |
| 13                                                                      | INF-PRNT | INFLUENCE ON PLANS-PARENTS             | 1=NO; 2=SOMEWAT; 3=GREAT DEAL                                                              | 261 8014A                    | 233 88049A<br>234 88049B               |
| 15                                                                      | INF-COUN | INFLUENCE ON PLANS-GUIDANCE COUNSELOR  | 1=NO; 2=SOMEWAT; 3=GREAT DEAL                                                              | 263 8014C                    | 235 88049C                             |
| 16                                                                      | INF-TCHR | INFLUENCE ON PLANS-TEACHER             | 1=NO; 2=SOMEWAT; 3=GREAT DEAL                                                              | 264 8014D                    | 236 88049D                             |
| 21                                                                      | INF-FRND | INFLUENCE ON PLANS-FRIENDS & RELATIVES | 1=NO; 2=SOMEWAT; 3=GREAT DEAL                                                              | 269 8014I<br>X(14) 262 8014B | 237 88049E                             |



STUDENT RATINGS OF SCHOOL

|    |          |                                              |                                       |           |            |
|----|----------|----------------------------------------------|---------------------------------------|-----------|------------|
| 23 | BUILDING | STU/SCHOOL RATING: CONDITION OF BUILDING     | 1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK) | 291 BQ18A | 283 88053A |
| 27 | LIBRARY  | STU/SCHOOL RATING: LIBRARY                   | 1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK) | 295 BQ18E | 284 88053B |
| 28 | AC INSTR | STU/SCHOOL RATING: ACADEMIC INSTRUCTION      | 1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK) | 296 BQ18F | 285 88053C |
| 30 | REPUTATN | STU/SCHOOL RATING: REPUTATION IN COMMUNITY   | 1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK) | 298 BQ18H | 286 88053D |
| 32 | TCNR INT | STU/SCH RATING: TEACHER INTEREST IN STUDENTS | 1=POOR;2=FAIR;3=GOOD;4=EXC (DK=BLANK) | 300 BQ18J | 287 88053E |

HOW IMPORTANT IS EACH OF THE FOLLOWING TO YOU IN YOUR LIFE

|    |          |                                               |                                       |           |            |
|----|----------|-----------------------------------------------|---------------------------------------|-----------|------------|
| 33 | IMP-WK S | IMPORTANCE OF SUCCESS IN WORK                 | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 313 BQ20A | 294 88057A |
| 34 | IMP-MARR | IMPORTANCE OF MARRIAGE, FAMILY LIFE           | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 314 BQ20B | 295 88057B |
| 35 | IMP-MONY | IMPORTANCE OF MONEY                           | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 315 BQ20C | 296 88057C |
| 36 | IMP-FRND | IMPORTANCE OF STRONG FRIENDSHIPS              | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 316 BQ20D | 297 88057D |
| 37 | IMP-STMK | IMPORTANCE OF STEADY WORK                     | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 317 BQ20E | 298 88057E |
| 38 | IMP-LEAD | IMPORTANCE OF BEING COMMUNITY LEADER          | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 318 BQ20F | 299 88057F |
| 39 | IMP-OPPC | IMPORTANCE OF OPPORTUNITIES FOR MY CHILDREN   | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 319 BQ20G | 300 88057G |
| 40 | IMP-CLOS | IMPORTANCE OF LIVING CLOSE TO RELATIVES       | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 320 BQ20H | 301 88057H |
| 41 | IMP-AWAY | IMPORTANCE OF GETTING AWAY FROM THIS AREA     | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 321 BQ20I | 302 88057I |
| 42 | IMP-SOCL | IMPORTANCE OF WORK TO CORRECT SOCIAL PROBLEMS | 1=NOT IMP; 2=SOMEWHAT IMP; 3=VERY IMP | 322 BQ20J | 303 88057J |

FEELINGS ABOUT SELF: SCALE REVERSED TO MAKE HIGHER NUMBER CORRESPOND TO POSITIVE FEELING

|    |          |                                            |                                                                            |           |            |
|----|----------|--------------------------------------------|----------------------------------------------------------------------------|-----------|------------|
| 43 | POS ATT  | FEELINGS ABOUT SELF: POSITIVE ATTITUDE     | REVERSED SCALE: 1=DISAGREE STRONGLY; 2=DISAGREE; 3=AGREE; 4=AGREE STRONGLY | 323 BQ21A | 306 88058A |
| 44 | GOODLUCK | FEELINGS ABOUT SELF: LUCK MOST IMPORTANT   | ORIGINAL SCALE: 1=AGREE STRONGLY; 2=AGREE; 3=DISAGREE; 4=DISAGREE STRONGLY | 324 BQ21B | 307 88058B |
| 45 | WORTH    | FEELINGS ABOUT SELF: WORTH EQUAL TO OTHERS | REVERSED SCALE: 1=DISAG. 4=AGREE STR                                       | 325 BQ21C | 308 88058C |
| 46 | DO WELL  | FEELINGS ABOUT SELF: CAN DO THINGS WELL    | REVERSED SCALE: 1=DISAG. 4=AGREE STR                                       | 326 BQ21D | 309 88058D |
| 47 | GETAHEAD | FEELINGS ABOUT SELF: CAN'T GET AHEAD       | ORIGINAL SCALE: 1=AGREE; 4=DISAGR STR                                      | 327 BQ21E | 310 88058E |
| 48 | PLANNING | FEELINGS ABOUT SELF: PLANS DON'T WORK OUT  | ORIGINAL SCALE: 1=AGREE; 4=DISAGR STR                                      | 328 BQ21F | 311 88058F |
| 49 | ACCEPT   | FEELINGS ABOUT SELF: ACCEPT COND. IN LIFE  | ORIGINAL SCALE: 1=AGREE; 4=DISAGR STR                                      | 329 BQ21G | 312 88058G |
| 50 | SATISF   | FEELINGS ABOUT SELF: SATISFIED WITH MYSELF | REVERSED SCALE: 1=DISAG. 4=AGREE STR                                       | 330 BQ21H | 313 88058H |

A-2



|    |          |                                                                               |                                                                                                                                                                                             |           |           |
|----|----------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| 69 | WK PLAN  | WORK STUDENT WANTS TO DO                                                      | 1=CLERICAL; 2=CRAFTSMAN; 3=FARMER;<br>4=HOMEMAKER; 5=LABORER; 6=MANAGER;<br>7=MILITARY; 8=OPERATIVE; 9=PROFESSIONAL;<br>10=PROPRIETOR; 11=PROTECTIVE; 12=SALES;<br>13=SERVICE; 14=TECHNICAL | 367 BQ25A | 345 BB062 |
|    |          | (* PLEASE NOTE: SEE 119-121 FOR OCCUPATIONS<br>RECODED TO DUNCAN SET SCALE *) |                                                                                                                                                                                             |           |           |
| 71 | FATH OCC | FATHER'S OCCUPATION                                                           | 1=CLERICAL; 2=CRAFTSMAN; 3=FARMER;<br>4=HOMEMAKER; 5=LABORER; 6=MANAGER;<br>7=MILITARY; 8=OPERATIVE; 9=PROFESSIONAL;<br>10=PROPRIETOR; 11=PROTECTIVE; 12=SALES;<br>13=SERVICE; 14=TECHNICAL | 368 BQ25B | 208 BB038 |
| 73 | MOTH OCC | MOTHER'S OCCUPATION                                                           | 1=CLERICAL; 2=CRAFTSMAN; 3=FARMER;<br>4=HOMEMAKER; 5=LABORER; 6=MANAGER;<br>7=MILITARY; 8=OPERATIVE; 9=PROFESSIONAL;<br>10=PROPRIETOR; 11=PROTECTIVE; 12=SALES;<br>13=SERVICE; 14=TECHNICAL | 369 BQ25C | 211 BB041 |

IMPORTANCE OF FACTORS IN DETERMINING PLANS FOR LIFE WORK

|    |          |                                              |                                                                                                                                                       |           |            |
|----|----------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
| 75 | I-PREVMK | IMPORTANCE TO CAREER PLANS: PREVIOUS WORK    | 1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY                                                                                                                   | 370 BQ26A | 346 EB043A |
| 76 | I-INCOME | IMPORTANCE TO CAREER PLANS: GOOD INCOME      | 1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY                                                                                                                   | 374 BQ26E | 347 EB043B |
| 77 | I-SECURT | IMPORTANCE TO CAREER PLANS: JOB SECURITY     | 1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY                                                                                                                   | 375 BQ26F | 348 EB043C |
| 78 | I-INTWRK | IMPORTANCE TO CAREER PLANS: INTERESTING WORK | 1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY                                                                                                                   | 376 BQ26G | 349 EB043D |
| 79 | I-DECISM | IMPORTANCE TO CAREER PLANS: FREE DECISIONS   | 1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY                                                                                                                   | 377 BQ26H | 350 EB043E |
| 80 | I-PEOPLE | IMPORTANCE TO CAREER PLANS: FRIENDLY PEOPLE  | 1=NOT IMPORTANT; 2=SOMEWHAT; 3=VERY                                                                                                                   | 379 BQ26J | 351 EB043F |
| 81 | ABILITY  | DO YOU HAVE ABILITY TO COMPLETE COLLEGE      | REVERSED SCALE: 1=DEF NOT; 2=DOUBT IT;<br>3=NOT SURE; 4=PROBABLY; 5=DEFINITELY                                                                        | 381 BQ28  | 362 BB049  |
| 82 | ED PLAN  | HIGHEST LEVEL OF EDUCATION PLANNED           | 1=LT HS; 2=GRAD HS; 3=VOC/JR COLL.;<br>4=COLLEGE; 5=GRAD/PROF                                                                                         | 383 BQ29B | 353 BB045  |
| 83 | 1YR PLAN | PLANS FOR FIRST YEAR AFTER HIGH SCHOOL       | 1=WORK FT; 2=APPRENT; 3=MILITARY;<br>4=HOMEMAKER; 5=VOCTECH; 6=JR COL ACAD;<br>7=JR COL VOCTECH; 8=4YR COLLEGE;<br>9=WORK PT; 10=OTHER; 11=JR/4YR COL | 385 BQ31  | 364 BB071  |

A-3

|     |          |                                                                           |                                                                                                                             |           |            |
|-----|----------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------|------------|
| 99  | FATH ED  | FATHER'S HIGHEST LEVEL OF EDUCATION                                       | 1=LESS THAN HS;2=HS/EQUIV. ADULT ED;<br>3=BUSINESS/TRADE OR SOME COL.;4=COLLEGE;<br>5=GRAD OR SOME GRAD SCHOOL; BLK=MISSING | 396 BQ90A | 209 B8039  |
| 100 | MOTH ED  | MOTHER'S HIGHEST LEVEL OF EDUCATION                                       | 1=LESS THAN HS;2=HS/EQUIV ADULT ED.;<br>3=BUSINESS/TRADE OR SOME COLLEGE;4=COLL.<br>5=GRADUATE OR SOME GRADUATE SCHOOL      | 397 BQ90B | 212 B8042  |
| 101 | M ED PLN | SCHOOLING MOTHER (PARENT) WANT FOR STUDENT                                | 1=QUIT HS; 2=HS ONLY; 3=VOC./JR. COLL;<br>4=COLLEGE; 5=GRAD/PROF                                                            | 400 BQ91B | 354 B8069  |
| 103 | PL STUDY | HAVE IN HOME: PLACE TO STUDY                                              | 1=HAVE; 0=DO NOT HAVE                                                                                                       | 403 BQ94A | 435 B8104A |
| 104 | NEWSPAPR | HAVE IN HOME: DAILY NEWSPAPER                                             | 1=HAVE; 0=DO NOT HAVE                                                                                                       | 404 BQ94B | 436 B8104B |
| 105 | REF BKS  | HAVE IN HOME: ENCYCLOPEDIA/REFERENCE BOOKS                                | 1=HAVE; 0=DO NOT HAVE                                                                                                       | 406 BQ94D | 437 B8104C |
| 106 | TYPEWRTR | HAVE IN HOME: TYPEWRITER                                                  | 1=HAVE; 0 DO NOT HAVE                                                                                                       | 411 BQ94I | 438 B8104D |
| 107 | STUDYAID | NUMBER OF STUDY AIDS AVAILABLE IN HOME<br>( COUNTS OF ORIGINAL 103 - 106) | 0 - 4; BLK(ONLY IF 103-106 ARE BLK)                                                                                         |           |            |

COMMENTS AND CRITICISM ON SCHOOL PROGRAMS

|     |          |                                                              |                                                                                           |           |            |
|-----|----------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------|------------|
| 109 | PRACWORK | SCHOOL DIDN'T HAVE ENOUGH PRACTICAL WORK EXP                 | 1=AGREE STRONGLY; 2=AGREE; 3=DISAGREE<br>4=DISAGREE STRONGLY; BLANK=NOT APPLY/<br>MISSING | 305 BQ19E | 183 E8039C |
| 110 | VOC-ED   | SCHOOL SHOULD HAVE MORE VO-TECH COURSES                      | 1=AGREE STRONGLY; 2=AGREE; 3=DISAGREE<br>4=DISAGREE STRONGLY; BLANK=NOT APPLY/<br>MISSING | 304 BQ19D | 182 E8039B |
| 111 | ED-COUNS | SCHOOL PROVIDED EDUCATIONAL COUNSL.<br>(REVERSED SCALE)      | 1=DISAGREE STR.; 2=DISAGREE; 3=AGREE<br>4=AGREE STRONGLY; BLANK=NOT APPLY/<br>MISSING     | 306 BQ19F | 184 E8039D |
| 112 | WRK COUN | SCHOOL PROVIDED MORE WORK COUNSELING<br>(REVERSED SCALE)     | 1=DISAGREE STR.; 2=DISAGREE; 3=AGREE<br>4=AGREE STRONGLY; BLANK=NOT APPLY/<br>MISSING     | 309 BQ19I | 185 E8039E |
| 113 | TOO HARD | DID HARD COURSES INTERFERE WITH EDUC.<br>(REVERSED SCALE)    | 1=A GREAT DEAL;2=SOMEWHAT; 3=NOT AT<br>ALL; MISSING=BLANK                                 | 277 BQ17A | 278 E8052A |
| 114 | ADJUST   | DID SCHOOL ADJUSTMENT INTERFERE<br>(REVERSED SCALE)          | 1=A GREAT DEAL;2=SOMEWHAT; 3=NOT AT<br>ALL; MISSING=BLANK                                 | 284 BQ17M | 279 E8052B |
| 115 | TEACHER  | DID POOR TEACHERS INTERFERE WITH EDUC.<br>(REVERSED SCALE)   | 1=A GREAT DEAL;2=SOMEWHAT; 3=NOT AT<br>ALL; MISSING=BLANK                                 | 285 BQ17I | 280 E8052C |
| 116 | STUDY    | DID POOR STUDY HABITS INTERFERE WITH ED.<br>(REVERSED SCALE) | 1=A GREAT DEAL;2=SOMEWHAT; 3=NOT AT<br>ALL; MISSING=BLANK                                 | 288 BQ17  | 281 E8052D |

MISC. VARIABLES

|     |                           |                                               |                                                                                  |           |            |
|-----|---------------------------|-----------------------------------------------|----------------------------------------------------------------------------------|-----------|------------|
| 117 | MOVEJOB<br>(FORMERLY 808) | WILLING TO MOVE TO GET JOB YOU WANT           | REVERSED SCALE: 1=NO; 2=YES BUT<br>RATHER STAY; 3=YES; MISSING=BLANK             | 417 BQ34  | 352 E8064  |
| 118 | ACADEMP                   | SHOULD HAVE MORE ACADEMIC EMPHASIS/COURSES    | 1=AGREE STRONGLY; 2=AGREE; 3=<br>DISAGREE; 4=DISAGREE STRONGLY<br>BLK=MISSING/NA | 301 BQ19A | 181 E8035A |
| 119 | STUDSEI                   | STUDENT OCCUPATIONAL ASPIRATIONS (DUNCAN SEI) | DERIVED FROM X(69)                                                               |           |            |
| 120 | FATHSEI                   | FATHERS OCCUPATIONAL (DUNCAN SEI)             | DERIVED FROM X(71)                                                               |           |            |
| 121 | MOTHSEI                   | MOTHERS OCCUPATIONAL (DUNCAN SEI)             | DERIVED FROM X(73)                                                               |           |            |

TEACHING TECHNIQUES USED IN COURSES THIS YEAR

|     |         |                                        |                                                                 |          |           |
|-----|---------|----------------------------------------|-----------------------------------------------------------------|----------|-----------|
| 122 | LECTURE | LECTURES USED IN COURSES THIS YEAR     | 1=NEVER; 2=SELDOM; 3=FAIRLY OFTEN;<br>4=FREQUENTLY; BLK=MISSING | 221 BQ4A | 19 E8003A |
| 123 | DISCUSS | STUDENT DISCUSSION USED THIS YEAR      | SAME                                                            | 222 BQ4B | 20 E8003B |
| 124 | LAB     | PROJECT/LABS USED IN COURSES THIS YEAR | SAME                                                            | 223 BQ4C | 21 E8003C |
| 125 | ESSAYS  | ESSAYS USED IN COURSES THIS YEAR       | SAME                                                            | 224 BQ4D | 22 E8003D |
| 126 | INDIVID | INDIVIDUAL INSTRUCTION USED IN COURSES | SAME                                                            | 226 BQ4F | 23 E8003F |
| 127 | MACHINE | TEACHING MACHINE USED THIS YEAR        | SAME                                                            | 227 BQ4G | 24 E8003G |

CLASSIFIER VARIABLES

|     |         |                                       |                                                                                                                        |                                           |                        |
|-----|---------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------|
| 150 | SEX     | STUDENT'S SEX                         | 1=MALE; 2=FEMALE; BLANK=MISSING                                                                                        | 1626 CSEX                                 | 404 88083              |
| 151 | SES     | SES COMPOSITE                         | 1=LOW; 2=MEDIUM; 3=HIGH; BLK=MISSING                                                                                   | 1070 SES                                  | 512 88085              |
| 152 | RACE    | STUDENT'S RACE COMPOSITE              | 1=WHITE; 2=BLACK; 3=ASIAN-AMER.;<br>4=AMER. INDIAN; 5=MEXICAN-AMER;<br>6=PUERTO RICAN; 7=OTHER HISPANIC;<br>8=OTHER/NA | 1625 CRACE                                | 416 88089<br>417 88090 |
| 153 | SCHTYPE | STUDENT'S SCHOOL TYPE                 | 1=PUBLIC; 2=PRIVATE; 3=CATHOLIC<br>BLK=MISSING                                                                         | (FROM SCH. TAPE) 2 SCHTYPE<br>= SCHVAR(2) |                        |
| 154 | GEUREG  | GEOGRAPHIC REGION OF STUDENT'S SCHOOL | 1=NORTHEAST; 2=NORTH CENTRAL; 3=SOUTH;<br>4=WEST; BLANK=MISSING                                                        | 1066 REGION                               | 6 CENREG               |
| 155 | HSPROG  | STUDENT'S PRESENT HIGH SCHOOL PROGRAM | 1=GENERAL; 2=ACADEMIC; 3=VOCTECH                                                                                       | 1073 HSPGM                                | 17 88002               |
| 156 | CONTYPE | COMMUNITY TYPE                        | 1=URBAN; 2=SUBURB; 3=RURAL;<br>BLK=MISSING                                                                             | 414 BQ95                                  |                        |

APPENDIX A - Table 2

ITEMS COMMON TO 1972 AND 1980 SCHOOL QUESTIONNAIRES

| VAR# | LABEL     | DESCRIPTION                                     | RESPONSE CODES (CONVERTED)                                                              | NLS                                             | HSB 80                            |
|------|-----------|-------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------|
| 2    | %WH STAF  | % OF CURRENT FACULTY WHO ARE WHITE G1           | 0-100; MISSING=BLANK                                                                    | 141 SCHQ180                                     | SB095P                            |
| 3    | %MS/PHD   | % OF FT TEACHERS WITH MASTERS OR DOCTORATE G2   | 1=0-29%, 2=30-49% 3=50-69%,<br>4=70+ %, MISSING=BLANK                                   | 179 SCHQ30                                      | SB042                             |
| 4    | %TURNOVR  | % OF FT TEACHERS LEAVING SINCE LAST YEAR G3     | 1=LT 5%, 2=5-9%, 3=10-19%,<br>4=20-100%, MISSING=BLANK                                  | 177 SCHQ28                                      | SB043                             |
| 5    | %ATTEND   | APPROX. AVERAGE DAILY PERCENTAGE ATTENDANCE G4  | 1=95+%, 2=90-95%, 3=85-89%,<br>4=LT 85%, MISSING=BLANK                                  | 124 SCHQ16                                      | SB048                             |
| 6    | %DROPOUT  | % ENTERING 10TH GRADE BUT NOT GRADUATING G3     | 0-100; MISSING=BLANK<br>(NLS: AVG OF BOYS AND GIRLS)                                    | AVG OF: 125 SCHQ17A<br>126 SCH17B               | SB014                             |
| 7    | %WHITE    | % OF CURRENT STUDENTS WHO ARE WHITE G1          | 0-100; MISSING=BLANK                                                                    | 133 SCHQ18G                                     | SB095S                            |
| 8    | %BLACK    | % OF CURRENT STUDENTS WHO ARE BLACK G5          | 0-100; MISSING=BLANK                                                                    | 128 SCHQ18B                                     | SB094S                            |
| 9    | %HISPAN   | % OF CURRENT STUDENTS WHO ARE HISPANIC G5       | 0-100; MISSING=BLANK<br>(SUM OF MEXICAN, P.R.,<br>OTHER LATIN)                          | SUM OF: 129 SCHQ18C<br>130SCHQ18D<br>131SCHQ18E | SB093S                            |
| 10   | %COL BND  | % OF LAST YEARS GRADS NOW IN 2/4 YR COLLEGE G2  | 1=LT 30%, 2=30-49%, 3=50-69%,<br>4=70+%, MISSING=BLANK                                  | 157 SCHQ22                                      | SB011                             |
| 11   | %ACAD     | % ENROLLED IN COLLEGE PREPARATORY CURRICULUM G2 | 0-100; MISSING=BLANK                                                                    | 53 SCHQ03T                                      | WEIGHTED AVG OF<br>SB017BY + 17BE |
| 12   | %GENERAL  | % ENROLLED IN GENERAL CURRICULUM G2             | 0-100; MISSING=BLANK                                                                    | 52 SCHQ03S                                      | WEIGHTED AVG OF<br>SB017AY + 17AE |
| 13   | %VOCTECH  | % ENROLLED IN VOC-TECH CURRICULUM G6            | 0-100; MISSING=BLANK                                                                    | SUM OF: 54 SCHQ03U<br>THROUGH 59 SCHQ03Z        | SUM OF WTD AVG<br>OF SB017C1Y-C7Y |
| 16   | STUD/TCMR | # OF STUDENTS PER CLASSROOM TEACHER             | #STUDENTS/# TEACHERS; MISSING=BLANK<br>(RANGE CHECK: 0-100)                             | 176 SCHQ27<br>/ 33 SCHQ20                       | SB039C/SB042A                     |
| 18   | % HAND    | % OF STUDENTS CLASSIFIED AS HANDICAPPED         | 100* #HANDICAPPED/# STUDENTS<br>(RANGE CHECK 0- 7 ) MISSING=BLANK                       | 70 SCHQ8<br>/33 SCHQ20                          | SB034/SB002A                      |
| 19   | SPEC ED   | TYPE OF SPECIAL ED TREATMENT                    | MEAN OF ALL HANDICAPPED VARS.<br>1=REGULAR CLASSES; 2=MIX OF 1 & 3<br>3=SPECIAL CLASSES | MEAN OF 71-81<br>SCHQ9A-K                       | MEAN OF SB035A<br>SB035K          |
| 20   | % DISADV  | % OF STUDENTS CLASSIFIED AS DISADVANTAGED       | 100* #DISADVANTAGED/#STUDENTS<br>(RANGE CHECK 0- 7 ) MISSING=BLANK                      | 87 SCHQ11<br>/33 SCHQ20                         | SB037/SB002A                      |

A-6

|    |          |                                                                   |                                 |                         |                                    |
|----|----------|-------------------------------------------------------------------|---------------------------------|-------------------------|------------------------------------|
| 24 | TITLE I  | HIGH SCHOOL PARTICIPATES IN TITLE I<br>(LESS ED. ACT, LOW INCOME) | 1=YES; 0=NO; MISSING=BLANK      | 166 SCHQ26C             | SB032C1                            |
| 25 | TITLE 7  | HIGH SCHOOL PARTICIPATES IN TITLE VII<br>(LESS BILINGUAL)         | 1=YES; 0=NO; MISSING=BLANK      | 169 SCHQ26F             | SB032C5                            |
| 26 | TITLE 1B | HS PART. IN TITLE I-B: VOC EDUC-BASIC<br>(VOCATIONL EDUCATION)    | 1=YES; 0=NO; MISSING=BLANK      | 171 SCHQ26H             | SB032H2                            |
| 27 | TITLE 1F | HS PART. IN TITLE I-F: VOC EDUC-HOMEMAKING                        | 1=YES; 0=NO; MISSING=BLANK      | 173 SCHQ26J             | SB032H1                            |
| 28 | ABIL GRP | HIGH SCHOOL USES ABILITY GROUPING                                 | 1=ANY YES; 0=NO; MISSING =BLANK | 121 SCHQ13<br>(ANY YES) | SB019 OR SB020<br>(ENG10 OR ENG12) |
| 29 | OFFER AP | HIGH SCHOOL OFFERS AP COURSES                                     | 1=YES; 0=NO; MISSING =BLANK     | 160 SCHQ25A             | SB029AD                            |

CLASSIFIERS

|    |          |                                |                                                      |                                              |                |
|----|----------|--------------------------------|------------------------------------------------------|----------------------------------------------|----------------|
| 35 | SCH SES  | MEAN SES OF STUDENTS IN SCHOOL | 1=LOW QUARTILE; 2=MIDDLE<br>TWO QUARTILES; 3=HIGH Q. | MEAN OF CONTINUOUS SES FROM<br>STUDENT FILES |                |
| 36 | SCH TYPE | SCHOOL TYPE OF CONTROL         | 1=PUBLIC; 2=PRIVATE;<br>3=CATHOLIC                   | 16                                           |                |
| 37 | REGION   | REGION                         | 1=NORTHEAST; 2=NORTH CENTRAL;<br>3=SOUTH; 4=WEST     | 502 (STATE)<br>CONVERTED                     |                |
| 38 | COM TYPE | COMMUNITY TYPE (URBANIZATION)  | 1=URBAN; 2=SUBURBAN; 3=RURAL                         | 240                                          |                |
| 39 | WEIGHT   | SCHOOL SAMPLE WEIGHT           |                                                      | 02                                           |                |
| 40 | SCHL ID  | SCHOOL ID NUMBER               |                                                      | 01                                           |                |
| 41 | #STUDENT | # OF STUDENTS IN THE SCHOOL    |                                                      | 33 SCHQ02Q                                   | COLS (117,121) |
| 42 | #SENIORS | # OF SENIORS IN THE SCHOOL     |                                                      | 32 SCH02N                                    | COLS (127,131) |
| 43 | STATUS   | SURVEY STATUS                  | MLS: 1=BY; 2=EXTRA BY; 3=RESURVEY                    | 03                                           |                |

A-7

APPENDIX B

Definitions of Variables and  
Coding Procedures



## APPENDIX B

Some of the population classification variables used in this report are self-explanatory while others need additional definition. Definitions and coding procedures for the latter are presented below.

- SES - SES scores are based on an equally weighted composite consisting of father's occupation, family income and selected household items.
- LOW SES--is the lower quartile of the SES composite scores.
- MIDDLE SES--is the two middle quartiles of the SES composite scores.
- HIGH SES--is the upper quartile of the SES composite scores.
- RACE - In 1972, individuals who responded as Blacks were coded as Blacks. Similar coding was carried out for Mexican-Americans and Puerto Ricans. "Other Hispanics" were other Latin Americans. In selected cross-tabs, Mexican-Americans, Puerto Ricans and Other Hispanics were combined into a "Hispanic" category.
- In 1980, individuals who responded Black but who also responded that their place of origin was one of the Hispanic countries were coded to reflect place of origin. With this exception, the coding was the same as 1972.
- GEOGRAPHIC REGION - In 1972 and 1980 the four regions consisted of the following:
- Northeast--New England and Middle Atlantic
- North Central--East North Central and West North Central
- South--South Atlantic, East South Central and West South Central
- West--Mountain and Pacific
- CURRICULUM - Self-report in both 1972 and 1980.
- URBAN,  
SUBURBAN,  
RURAL - 1972: Rural is rural only.
- Suburban is small city or town, suburb of a medium or large city.
- Urban is medium-sized city, large city or very large city.
- 1980: Reported by school administrators in response to a question having the above three categories.

APPENDIX C

Cross-Tabulations of Test Scores

5-1.1

IRT VOCABULARY FORMULA SCORE  
(SCALED TO NLS VOCABULARY TEST)

SEX X CURRICULUM

| SEX    | CURRICULUM | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |            | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| MALE   | GENERAL    | 2785        | 468512        | 5.27 | 3.6  | 4186        | 457657        | 5.05 | 3.2  | 3.37           | -0.23                   | -0.07          |
| MALE   | ACADEMIC   | 3382        | 695507        | 8.04 | 3.9  | 4496        | 470223        | 7.81 | 3.6  | 3.73           | -0.23                   | -0.06          |
| MALE   | VOCATIONAL | 1637        | 261824        | 4.27 | 3.4  | 2551        | 275329        | 4.16 | 2.9  | 3.12           | -0.11                   | -0.04          |
| FEMALE | GENERAL    | 2519        | 432012        | 5.36 | 3.6  | 4514        | 481037        | 4.76 | 3.2  | 3.34           | -0.60 *                 | -0.18          |
| FEMALE | ACADEMIC   | 3097        | 626809        | 8.56 | 3.7  | 4772        | 518439        | 7.56 | 3.6  | 3.66           | -1.00 *                 | -0.27          |
| FEMALE | VOCATIONAL | 2270        | 374454        | 5.01 | 3.4  | 3196        | 338336        | 4.25 | 3.0  | 3.15           | -0.75 *                 | -0.24          |

5-1.2

SES X RACE

| SES    | RACE     | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|----------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |          | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | WHITE    | 2494        | 440597        | 5.52 | 3.7  | 3891        | 449362        | 4.71 | 3.2  | 3.39           | -0.81 *                 | -0.24          |
| LOW    | BLACK    | 1230        | 146835        | 2.76 | 2.7  | 1603        | 147551        | 2.75 | 2.5  | 2.59           | -0.01                   | -0.01          |
| LOW    | HISPANIC | 456         | 57358         | 3.26 | 2.9  | 1524        | 78204         | 3.07 | 2.7  | 2.74           | -0.18                   | -0.07          |
| MIDDLE | WHITE    | 6273        | 1283402       | 6.80 | 3.7  | 9033        | 1068234       | 6.08 | 3.4  | 3.53           | -0.72 *                 | -0.20          |
| MIDDLE | BLACK    | 585         | 74623         | 3.91 | 3.1  | 1115        | 97817         | 3.67 | 2.8  | 2.96           | -0.24                   | -0.08          |
| MIDDLE | HISPANIC | 206         | 29568         | 4.14 | 3.2  | 908         | 57446         | 4.16 | 3.1  | 3.09           | 0.03                    | 0.01           |
| HIGH   | WHITE    | 3383        | 653922        | 8.70 | 3.8  | 4709        | 567221        | 7.88 | 3.6  | 3.65           | -0.82 *                 | -0.23          |
| HIGH   | BLACK    | 102         | 12332         | 5.76 | 4.1  | 276         | 22306         | 5.37 | 3.6  | 3.72           | -0.39                   | -0.11          |
| HIGH   | HISPANIC | 47          | 6777          | 5.79 | 3.2  | 226         | 14503         | 4.90 | 3.2  | 3.19           | -0.89                   | -0.28          |

\*SIGNIFICANT AT .05 OR LESS

5-1.3

IRT VOCABULARY FORMULA SCORE  
(SCALED TO NLS VOCABULARY TEST)

SES X SCHOOL TYPE

| SES    | SCHOOL TYPE | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|-------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |             | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | PUBLIC      | 4112        | 630281        | 4.48 | 3.6  | 6775        | 670332        | 3.95 | 3.1  | 3.27           | -0.53 *                 | -0.16          |
| LOW    | PRIVATE     | 9           | 1940          | 8.19 | 3.2  | 57          | 9351          | 4.69 | 3.3  | 3.33           | -3.51                   | -1.05          |
| LOW    | CATHOLIC    | 138         | 29087         | 7.63 | 3.7  | 537         | 27671         | 6.27 | 3.5  | 3.53           | -1.37 *                 | -0.39          |
| MIDDLE | PUBLIC      | 6672        | 1285659       | 6.40 | 3.7  | 10121       | 1152308       | 5.66 | 3.4  | 3.55           | -0.74 *                 | -0.21          |
| MIDDLE | PRIVATE     | 33          | 7890          | 7.10 | 3.0  | 178         | 26930         | 6.55 | 3.5  | 3.45           | -0.55                   | -0.16          |
| MIDDLE | CATHOLIC    | 549         | 132729        | 7.87 | 3.7  | 1175        | 89768         | 6.94 | 3.4  | 3.53           | -0.93 *                 | -0.26          |
| HIGH   | PUBLIC      | 3261        | 615445        | 8.58 | 3.8  | 4198        | 517537        | 7.57 | 3.6  | 3.69           | -1.01 *                 | -0.28          |
| HIGH   | PRIVATE     | 23          | 6068          | 8.97 | 4.7  | 490         | 47134         | 9.24 | 3.8  | 3.86           | 0.27                    | 0.07           |
| HIGH   | CATHOLIC    | 303         | 62517         | 9.29 | 3.5  | 769         | 62715         | 7.69 | 3.5  | 3.51           | -1.61 *                 | -0.46          |

5-1.4

SES X GEOGRAPHIC REGION

| SES    | REGION        | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|---------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |               | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | NORTHEAST     | 836         | 157542        | 5.57 | 3.9  | 1457        | 145742        | 4.72 | 3.3  | 3.53           | -0.85 *                 | -0.24          |
| LOW    | NORTH CENTRAL | 987         | 187162        | 5.03 | 3.6  | 1735        | 179518        | 4.52 | 3.2  | 3.34           | -0.51 *                 | -0.15          |
| LOW    | SOUTH         | 2045        | 257851        | 3.74 | 3.2  | 2968        | 282557        | 3.42 | 2.9  | 3.04           | -0.32 *                 | -0.11          |
| LOW    | WEST          | 623         | 91290         | 4.37 | 3.5  | 1209        | 99538         | 4.03 | 3.1  | 3.27           | -0.34                   | -0.11          |
| MIDDLE | NORTHEAST     | 1786        | 422549        | 7.14 | 3.8  | 2314        | 288557        | 6.30 | 3.5  | 3.63           | -0.83 *                 | -0.23          |
| MIDDLE | NORTH CENTRAL | 2147        | 454048        | 6.47 | 3.7  | 3754        | 414256        | 5.82 | 3.4  | 3.52           | -0.65 *                 | -0.18          |
| MIDDLE | SOUTH         | 2197        | 341416        | 5.77 | 3.6  | 3396        | 346648        | 5.17 | 3.4  | 3.45           | -0.59 *                 | -0.17          |
| MIDDLE | WEST          | 1356        | 242788        | 6.59 | 3.8  | 2010        | 219546        | 5.92 | 3.5  | 3.62           | -0.67 *                 | -0.18          |
| HIGH   | NORTHEAST     | 855         | 194505        | 9.25 | 3.6  | 1119        | 162116        | 8.66 | 3.7  | 3.67           | -0.59 *                 | -0.16          |
| HIGH   | NORTH CENTRAL | 946         | 187723        | 8.46 | 3.8  | 1632        | 175383        | 7.50 | 3.5  | 3.61           | -0.96 *                 | -0.26          |
| HIGH   | SOUTH         | 1080        | 172449        | 8.24 | 3.9  | 1606        | 153689        | 7.07 | 3.6  | 3.74           | -1.18 *                 | -0.31          |
| HIGH   | WEST          | 782         | 141085        | 8.49 | 3.8  | 1100        | 136197        | 7.56 | 3.5  | 3.62           | -0.93 *                 | -0.26          |

\*SIGNIFICANT AT .05 OR LESS

5-1.5

IRT VOCABULARY FORMULA SCORE  
(SCALED TO NLS VOCABULARY TEST)

SES X CURRICULUM

| SES    | CURRICULUM | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |            | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | GENERAL    | 1792        | 275447        | 4.09 | 3.3  | 3124        | 303653        | 3.05 | 2.9  | 3.05           | -0.24                   | -0.08          |
| LOW    | ACADEMIC   | 1049        | 176784        | 6.46 | 4.0  | 1636        | 147855        | 5.69 | 3.6  | 3.77           | -0.77 *                 | -0.20          |
| LOW    | VOCATIONAL | 1650        | 241613        | 3.79 | 3.2  | 2476        | 243811        | 3.39 | 2.7  | 2.92           | -0.40 *                 | -0.14          |
| MIDDLE | GENERAL    | 2585        | 463462        | 5.47 | 3.5  | 4305        | 481705        | 5.07 | 3.2  | 3.28           | -0.40 *                 | -0.12          |
| MIDDLE | ACADEMIC   | 2998        | 663687        | 7.95 | 3.6  | 4253        | 459862        | 7.36 | 3.5  | 3.53           | -0.58 *                 | -0.17          |
| MIDDLE | VOCATIONAL | 1902        | 333350        | 5.13 | 3.4  | 2794        | 312810        | 4.59 | 2.9  | 3.14           | -0.55 *                 | -0.17          |
| HIGH   | GENERAL    | 905         | 157840        | 7.06 | 3.7  | 1419        | 170255        | 6.17 | 3.2  | 3.42           | -0.89 *                 | -0.26          |
| HIGH   | ACADEMIC   | 2422        | 479275        | 9.46 | 3.6  | 3448        | 387614        | 8.79 | 3.5  | 3.51           | -0.67 *                 | -0.19          |
| HIGH   | VOCATIONAL | 336         | 58648         | 6.11 | 3.5  | 549         | 64281         | 5.45 | 3.0  | 3.21           | -0.66                   | -0.21          |

5-1.6

SES X COMMUNITY TYPE

| SES    | COMMUNITY TYPE | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|----------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |                | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | URBAN          | 1192        | 173605        | 4.48 | 3.6  | 2059        | 164566        | 3.75 | 3.1  | 3.25           | -0.73 *                 | -0.22          |
| LOW    | SUBURBAN       | 1668        | 271149        | 4.78 | 3.7  | 2697        | 264518        | 4.22 | 3.2  | 3.39           | -0.57 *                 | -0.17          |
| LOW    | RURAL          | 1489        | 231322        | 4.59 | 3.6  | 2613        | 278270        | 4.08 | 3.1  | 3.28           | -0.51 *                 | -0.16          |
| MIDDLE | URBAN          | 1985        | 364152        | 6.28 | 3.7  | 2296        | 227999        | 5.46 | 3.5  | 3.61           | -0.82 *                 | -0.23          |
| MIDDLE | SUBURBAN       | 3633        | 751303        | 6.88 | 3.8  | 5633        | 625854        | 6.01 | 3.4  | 3.57           | -0.87 *                 | -0.24          |
| MIDDLE | RURAL          | 1669        | 311812        | 6.12 | 3.7  | 3545        | 415153        | 5.58 | 3.4  | 3.50           | -0.55 *                 | -0.16          |
| HIGH   | URBAN          | 903         | 163506        | 8.22 | 3.8  | 950         | 101713        | 7.53 | 3.8  | 3.83           | -0.69 *                 | -0.18          |
| HIGH   | SUBURBAN       | 2320        | 454622        | 8.91 | 3.7  | 3323        | 386381        | 7.86 | 3.6  | 3.66           | -1.05 *                 | -0.29          |
| HIGH   | RURAL          | 372         | 66836         | 8.06 | 3.9  | 1184        | 139292        | 7.40 | 3.5  | 3.61           | -0.67                   | -0.18          |

\*SIGNIFICANT AT .05 OR LESS

5-2.1

IRT READING FORMULA SCORE  
(SCALED TO NLS READING TEST)

SEX X CURRICULUM

| SEX    | CURRICULUM | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |            | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| MALE   | GENERAL    | 2789        | 469294        | 8.48  | 4.8  | 4181        | 457068        | 7.79  | 4.9  | 4.85           | -0.68 *                 | -0.14          |
| MALE   | ACADEMIC   | 3386        | 696241        | 11.77 | 4.4  | 4486        | 468792        | 11.52 | 4.7  | 4.61           | -0.25                   | -0.05          |
| MALE   | VOCATIONAL | 1636        | 261880        | 7.09  | 4.8  | 2548        | 274626        | 6.62  | 4.8  | 4.80           | -0.47                   | -0.10          |
| FEMALE | GENERAL    | 2520        | 432074        | 8.49  | 4.8  | 4494        | 479098        | 7.78  | 4.7  | 4.72           | -0.71 *                 | -0.15          |
| FEMALE | ACADEMIC   | 3098        | 627198        | 12.23 | 4.4  | 4755        | 517360        | 11.31 | 4.6  | 4.57           | -0.92 *                 | -0.20          |
| FEMALE | VOCATIONAL | 2278        | 375477        | 7.81  | 4.5  | 3192        | 337661        | 7.20  | 4.5  | 4.54           | -0.60 *                 | -0.13          |

5-2.2

SES X RACE

| SES    | RACE     | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|----------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |          | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | WHITE    | 2498        | 441177        | 8.90  | 4.9  | 3887        | 448611        | 7.71  | 4.8  | 4.80           | -1.19 *                 | -0.25          |
| LOW    | BLACK    | 1237        | 147590        | 5.25  | 4.2  | 1591        | 146527        | 4.90  | 4.1  | 4.17           | -0.35                   | -0.08          |
| LOW    | HISPANIC | 457         | 57591         | 5.84  | 4.3  | 1522        | 78299         | 5.01  | 4.2  | 4.22           | -0.83 *                 | -0.20          |
| MIDDLE | WHITE    | 6275        | 1284218       | 10.30 | 4.6  | 9001        | 1064311       | 9.47  | 4.8  | 4.76           | -0.83 *                 | -0.17          |
| MIDDLE | BLACK    | 586         | 74714         | 6.88  | 4.6  | 1117        | 98049         | 6.42  | 4.6  | 4.61           | -0.46                   | -0.10          |
| MIDDLE | HISPANIC | 205         | 29511         | 6.80  | 4.9  | 904         | 57212         | 6.44  | 4.6  | 4.70           | -0.36                   | -0.08          |
| HIGH   | WHITE    | 3383        | 653764        | 12.23 | 4.4  | 4701        | 566634        | 11.47 | 4.7  | 4.60           | -0.76 *                 | -0.16          |
| HIGH   | BLACK    | 102         | 12332         | 8.80  | 4.9  | 274         | 22217         | 7.84  | 4.9  | 4.94           | -0.96                   | -0.19          |
| HIGH   | HISPANIC | 48          | 7002          | 8.67  | 4.9  | 226         | 14527         | 7.04  | 4.7  | 4.78           | -1.63                   | -0.34          |

\*SIGNIFICANT AT .05 OR LESS



5-2.3

IRT READING FORMULA SCORE  
(SCALED TO NLS READING TEST)

SES X SCHOOL TYPE

| SES    | SCHOOL TYPE | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|-------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |             | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | PUBLIC      | 4124        | 631877        | 7.52  | 4.9  | 6758        | 668490        | 6.63  | 4.7  | 4.81           | -0.89 *                 | -0.19          |
| LOW    | PRIVATE     | 9           | 1940          | 12.37 | 5.5  | 57          | 9351          | 7.18  | 5.0  | 5.13           | -5.20                   | -1.01          |
| LOW    | CATHOLIC    | 138         | 29087         | 11.19 | 4.2  | 535         | 27659         | 8.87  | 4.6  | 4.51           | -2.32 *                 | -0.51          |
| MIDDLE | PUBLIC      | 6675        | 1286706       | 9.82  | 4.8  | 10089       | 1147909       | 8.95  | 4.9  | 4.87           | -0.87 *                 | -0.18          |
| MIDDLE | PRIVATE     | 33          | 7890          | 10.13 | 4.3  | 178         | 27117         | 10.27 | 5.4  | 5.25           | 0.14                    | 0.03           |
| MIDDLE | CATHOLIC    | 548         | 132557        | 11.20 | 4.4  | 1171        | 89847         | 10.01 | 4.6  | 4.54           | -1.19 *                 | -0.26          |
| HIGH   | PUBLIC      | 3262        | 615511        | 12.08 | 4.5  | 4196        | 517043        | 11.10 | 4.8  | 4.71           | -0.99 *                 | -0.21          |
| HIGH   | PRIVATE     | 23          | 6068          | 12.92 | 5.4  | 488         | 47122         | 12.89 | 4.3  | 4.38           | -0.03                   | -0.01          |
| HIGH   | CATHOLIC    | 303         | 62517         | 12.65 | 4.2  | 764         | 62685         | 10.77 | 4.8  | 4.65           | -1.89 *                 | -0.41          |

5-2.4

SES X GEOGRAPHIC REGION

| SES    | REGION        | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|---------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |               | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | NORTHEAST     | 837         | 157764        | 8.57  | 4.9  | 1446        | 144489        | 7.53  | 4.7  | 4.79           | -1.04 *                 | -0.22          |
| LOW    | NORTH CENTRAL | 992         | 187797        | 8.20  | 4.9  | 1732        | 179111        | 7.46  | 4.8  | 4.84           | -0.74 *                 | -0.15          |
| LOW    | SOUTH         | 2049        | 258334        | 6.73  | 4.9  | 2965        | 282458        | 5.89  | 4.7  | 4.76           | -0.84 *                 | -0.18          |
| LOW    | WEST          | 625         | 91545         | 7.49  | 4.9  | 1207        | 99442         | 6.63  | 4.5  | 4.67           | -0.86 *                 | -0.18          |
| MIDDLE | NORTHEAST     | 1787        | 422789        | 10.35 | 4.7  | 2295        | 286207        | 9.48  | 4.8  | 4.75           | -0.86 *                 | -0.18          |
| MIDDLE | NORTH CENTRAL | 2150        | 454846        | 9.94  | 4.7  | 3748        | 413330        | 9.31  | 4.9  | 4.81           | -0.63 *                 | -0.13          |
| MIDDLE | SOUTH         | 2196        | 341285        | 9.47  | 4.8  | 3393        | 346732        | 8.37  | 5.1  | 4.95           | -1.09 *                 | -0.22          |
| MIDDLE | WEST          | 1356        | 242962        | 9.75  | 4.9  | 2002        | 218604        | 9.08  | 4.9  | 4.92           | -0.67 *                 | -0.14          |
| HIGH   | NORTHEAST     | 853         | 193977        | 12.68 | 4.5  | 1115        | 161665        | 11.93 | 4.6  | 4.56           | -0.75 *                 | -0.16          |
| HIGH   | NORTH CENTRAL | 948         | 188091        | 11.86 | 4.5  | 1633        | 175487        | 11.14 | 4.8  | 4.68           | -0.72 *                 | -0.15          |
| HIGH   | SOUTH         | 1081        | 172597        | 12.15 | 4.4  | 1604        | 153862        | 10.74 | 5.0  | 4.76           | -1.41 *                 | -0.30          |
| HIGH   | WEST          | 782         | 141164        | 11.73 | 4.8  | 1096        | 135836        | 10.92 | 4.8  | 4.78           | -0.81 *                 | -0.17          |

\*SIGNIFICANT AT .05 OR LESS

5-2.5

IRT READING FORMULA SCORE  
(SCALED TO NLS READING TEST)

SES X CURRICULUM

| SES    | CURRICULUM | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |            | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | GENERAL    | 1795        | 275073        | 7.00  | 4.8  | 3112        | 302403        | 6.35  | 4.5  | 4.59           | -0.65 *                 | -0.14          |
| LOW    | ACADEMIC   | 1050        | 176902        | 10.21 | 4.9  | 1632        | 147683        | 9.17  | 4.9  | 4.92           | -1.05 *                 | -0.21          |
| LOW    | VOCATIONAL | 1658        | 242666        | 6.51  | 4.6  | 2472        | 243219        | 5.84  | 4.5  | 4.51           | -0.67 *                 | -0.15          |
| MIDDLE | GENERAL    | 2585        | 463576        | 8.79  | 4.6  | 4290        | 480026        | 8.11  | 4.8  | 4.71           | -0.68 *                 | -0.14          |
| MIDDLE | ACADEMIC   | 3001        | 664544        | 11.67 | 4.3  | 4236        | 458151        | 11.18 | 4.6  | 4.49           | -0.48 *                 | -0.11          |
| MIDDLE | VOCATIONAL | 1902        | 333460        | 7.99  | 4.6  | 2793        | 312351        | 7.45  | 4.6  | 4.58           | -0.54 *                 | -0.12          |
| HIGH   | GENERAL    | 907         | 158144        | 10.25 | 4.6  | 1419        | 170498        | 9.37  | 4.7  | 4.64           | -0.88 *                 | -0.19          |
| HIGH   | ACADEMIC   | 2423        | 479422        | 13.11 | 4.1  | 3440        | 386068        | 12.52 | 4.4  | 4.27           | -0.60 *                 | -0.14          |
| HIGH   | VOCATIONAL | 334         | 58262         | 9.19  | 4.7  | 548         | 64248         | 8.38  | 4.9  | 4.85           | -0.81                   | -0.17          |

5-2.6

SES X COMMUNITY TYPE

| SES    | COMMUNITY TYPE | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|----------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |                | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | URBAN          | 1198        | 174221        | 7.39  | 4.8  | 2055        | 164204        | 6.35  | 4.6  | 4.66           | -1.04 *                 | -0.22          |
| LOW    | SUBURBAN       | 1673        | 271990        | 7.79  | 4.9  | 2684        | 263083        | 6.94  | 4.7  | 4.80           | -0.85 *                 | -0.18          |
| LOW    | RURAL          | 1492        | 231638        | 7.89  | 5.2  | 2611        | 278214        | 6.75  | 4.8  | 4.96           | -1.14 *                 | -0.23          |
| MIDDLE | URBAN          | 1985        | 364226        | 9.45  | 4.8  | 2288        | 226736        | 8.64  | 5.0  | 4.91           | -0.81 *                 | -0.17          |
| MIDDLE | SUBURBAN       | 3633        | 751486        | 10.31 | 4.7  | 5608        | 623296        | 9.23  | 4.8  | 4.76           | -1.08 *                 | -0.23          |
| MIDDLE | RURAL          | 1671        | 312429        | 9.83  | 4.8  | 3542        | 414842        | 9.01  | 5.0  | 4.96           | -0.82 *                 | -0.17          |
| HIGH   | URBAN          | 904         | 163697        | 11.70 | 4.7  | 953         | 101670        | 11.06 | 4.9  | 4.79           | -0.63                   | -0.13          |
| HIGH   | SUBURBAN       | 2328        | 454498        | 12.42 | 4.4  | 3315        | 386174        | 11.27 | 4.8  | 4.65           | -1.16 *                 | -0.25          |
| HIGH   | RURAL          | 372         | 66836         | 11.51 | 4.6  | 1180        | 139006        | 11.11 | 4.8  | 4.78           | -0.41                   | -0.09          |

\*SIGNIFICANT AT .05 OR LESS

5-3.1

IRT MATHEMATICS FORMULA SCORE  
(SCALED TO NLS MATHEMATICS TEST)

SEX X CURRICULUM

| SEX    | CURRICULUM | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |            | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| MALE   | GENERAL    | 2785        | 468685        | 11.17 | 6.8  | 4164        | 455165        | 10.72 | 6.7  | 6.70           | -0.45                   | -0.07          |
| MALE   | ACADEMIC   | 3386        | 696179        | 17.26 | 6.2  | 4491        | 470390        | 17.18 | 6.1  | 6.18           | -0.08                   | -0.01          |
| MALE   | VOCATIONAL | 1636        | 261450        | 9.26  | 6.4  | 2528        | 272996        | 9.06  | 6.6  | 6.56           | -0.20                   | -0.03          |
| FEMALE | GENERAL    | 2517        | 432063        | 9.58  | 6.7  | 4457        | 475102        | 9.38  | 6.3  | 6.42           | -0.28                   | -0.04          |
| FEMALE | ACADEMIC   | 3099        | 627279        | 16.00 | 6.2  | 4748        | 516868        | 15.47 | 6.0  | 6.08           | -0.53 *                 | -0.09          |
| FEMALE | VOCATIONAL | 2276        | 375276        | 8.45  | 6.0  | 3172        | 336380        | 8.28  | 5.8  | 5.90           | -0.17                   | -0.03          |

5-3.2

SES X RACE

| SES    | RACE     | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|----------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |          | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | WHITE    | 2495        | 440916        | 11.16 | 7.0  | 3858        | 445567        | 9.70  | 6.4  | 6.64           | -1.47 *                 | -0.22          |
| LOW    | BLACK    | 1233        | 147062        | 5.68  | 5.8  | 1592        | 147685        | 5.76  | 5.7  | 5.76           | 0.09                    | 0.01           |
| LOW    | HISPANIC | 453         | 57164         | 7.41  | 6.2  | 1506        | 76832         | 6.46  | 6.5  | 6.42           | -0.95                   | -0.15          |
| MIDDLE | WHITE    | 6275        | 1284140       | 13.47 | 6.8  | 8936        | 1064151       | 12.77 | 6.6  | 6.69           | -0.70 *                 | -0.11          |
| MIDDLE | BLACK    | 586         | 74716         | 7.54  | 6.5  | 1114        | 97737         | 7.58  | 6.4  | 6.45           | 0.04                    | 0.01           |
| MIDDLE | HISPANIC | 206         | 29568         | 8.08  | 7.0  | 895         | 56474         | 8.95  | 6.9  | 6.94           | 0.86                    | 0.12           |
| HIGH   | WHITE    | 3385        | 654070        | 16.82 | 6.1  | 4688        | 564825        | 16.14 | 6.3  | 6.20           | -0.68 *                 | -0.11          |
| HIGH   | BLACK    | 102         | 12332         | 10.21 | 6.3  | 272         | 22047         | 10.88 | 7.3  | 7.05           | 0.67                    | 0.10           |
| HIGH   | HISPANIC | 48          | 7802          | 10.94 | 6.8  | 224         | 14298         | 11.44 | 6.5  | 6.59           | 0.50                    | 0.08           |

BEST COPY AVAILABLE

\*SIGNIFICANT AT .05 OR LESS

5-3.3

IRT MATHEMATICS FORMULA SCORE  
(SCALED TO NLS MATHEMATICS TEST)

BEST COPY AVAILABLE

SES X SCHOOL TYPE

| SES    | SCHOOL TYPE | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|-------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |             | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | PUBLIC      | 4114        | 630718        | 9.27  | 7.0  | 6708        | 664658        | 8.27  | 6.5  | 6.70           | -0.99 *                 | -0.15          |
| LOW    | PRIVATE     | 9           | 1940          | 13.86 | 6.4  | 57          | 9351          | 8.64  | 6.5  | 6.58           | -5.22                   | -0.79          |
| LOW    | CATHOLIC    | 138         | 29087         | 13.81 | 7.0  | 538         | 27694         | 12.37 | 6.7  | 6.77           | -1.44                   | -0.21          |
| MIDDLE | PUBLIC      | 6675        | 1286515       | 12.76 | 7.1  | 10058       | 1146465       | 11.98 | 6.8  | 6.92           | -0.78 *                 | -0.11          |
| MIDDLE | PRIVATE     | 33          | 7890          | 14.36 | 5.6  | 179         | 27304         | 13.04 | 6.9  | 6.73           | -1.32                   | -0.20          |
| MIDDLE | CATHOLIC    | 549         | 132729        | 14.70 | 6.3  | 1173        | 89868         | 14.26 | 6.2  | 6.20           | -0.44                   | -0.07          |
| HIGH   | PUBLIC      | 3264        | 615817        | 16.53 | 6.3  | 4175        | 514958        | 15.63 | 6.6  | 6.46           | -0.90 *                 | -0.14          |
| HIGH   | PRIVATE     | 23          | 6068          | 18.05 | 5.3  | 488         | 47122         | 18.35 | 5.2  | 5.21           | 0.30                    | 0.06           |
| HIGH   | CATHOLIC    | 303         | 62517         | 17.50 | 5.8  | 765         | 62555         | 15.56 | 5.8  | 5.77           | -1.94 *                 | -0.34          |

5-3.4

SES X GEOGRAPHIC REGION

| SES    | REGION        | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|---------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |               | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | NORTHEAST     | 836         | 157716        | 10.47 | 7.2  | 1430        | 143718        | 9.62  | 6.7  | 6.91           | -0.85                   | -0.12          |
| LOW    | NORTH CENTRAL | 992         | 187797        | 10.41 | 7.0  | 1724        | 178420        | 9.74  | 6.6  | 6.74           | -0.67                   | -0.10          |
| LOW    | SOUTH         | 2043        | 257616        | 8.16  | 6.8  | 2953        | 281934        | 7.04  | 6.1  | 6.39           | -1.11 *                 | -0.17          |
| LOW    | WEST          | 622         | 91153         | 8.91  | 7.0  | 1196        | 97631         | 8.33  | 6.7  | 6.77           | -0.58                   | -0.09          |
| MIDDLE | NORTHEAST     | 1788        | 422848        | 13.58 | 6.9  | 2297        | 287033        | 13.38 | 6.7  | 6.81           | -0.20                   | -0.03          |
| MIDDLE | NORTH CENTRAL | 2150        | 454942        | 13.09 | 6.9  | 3749        | 413646        | 12.67 | 6.7  | 6.78           | -0.42                   | -0.06          |
| MIDDLE | SOUTH         | 2196        | 341237        | 12.44 | 7.0  | 3389        | 346872        | 10.76 | 6.7  | 6.83           | -1.68 *                 | -0.25          |
| MIDDLE | WEST          | 1356        | 242837        | 12.04 | 7.3  | 1975        | 216085        | 11.82 | 6.8  | 7.02           | -0.22                   | -0.03          |
| HIGH   | NORTHEAST     | 854         | 194231        | 17.48 | 5.9  | 1110        | 161056        | 17.24 | 6.0  | 5.96           | -0.24                   | -0.04          |
| HIGH   | NORTH CENTRAL | 947         | 187807        | 16.71 | 6.2  | 1628        | 175098        | 15.81 | 6.4  | 6.36           | -0.90 *                 | -0.14          |
| HIGH   | SOUTH         | 1081        | 172597        | 16.72 | 6.2  | 1600        | 153784        | 14.75 | 6.6  | 6.42           | -1.97 *                 | -0.31          |
| HIGH   | WEST          | 784         | 141500        | 15.21 | 6.7  | 1090        | 134697        | 15.39 | 6.4  | 6.56           | 0.18                    | 0.03           |

\*SIGNIFICANT AT .05 OR LESS

5-3.5

IRT MATHEMATICS FORMULA SCORE  
(SCALED TO NLS MATHEMATICS TEST)

SES X CURRICULUM

| SES    | CURRICULUM | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |            | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | GENERAL    | 1787        | 274915        | 8.31  | 6.5  | 3085        | 299906        | 7.76  | 6.1  | 6.23           | -0.55                   | -0.09          |
| LOW    | ACADEMIC   | 1050        | 176935        | 14.03 | 7.4  | 1627        | 147350        | 12.44 | 6.9  | 7.09           | -1.59 *                 | -0.22          |
| LOW    | VOCATIONAL | 1656        | 242432        | 7.24  | 5.8  | 2458        | 242398        | 6.99  | 5.9  | 5.88           | -0.24                   | -0.04          |
| MIDDLE | GENERAL    | 2584        | 463435        | 10.61 | 6.6  | 4280        | 479249        | 10.36 | 6.3  | 6.44           | -0.24                   | -0.04          |
| MIDDLE | ACADEMIC   | 3002        | 664530        | 16.19 | 6.1  | 4239        | 459415        | 16.00 | 6.0  | 6.06           | -0.19                   | -0.03          |
| MIDDLE | VOCATIONAL | 1903        | 333596        | 9.56  | 6.3  | 2771        | 310480        | 9.38  | 6.1  | 6.17           | -0.18                   | -0.03          |
| HIGH   | GENERAL    | 909         | 158623        | 13.57 | 6.4  | 1407        | 168699        | 12.87 | 6.4  | 6.38           | -0.70                   | -0.11          |
| HIGH   | ACADEMIC   | 2423        | 479422        | 18.32 | 5.4  | 3437        | 386931        | 18.01 | 5.4  | 5.37           | -0.31                   | -0.06          |
| HIGH   | VOCATIONAL | 334         | 58089         | 10.94 | 6.1  | 544         | 63884         | 10.82 | 6.5  | 6.37           | -0.12                   | -0.02          |

5-3.6

SES X COMMUNITY TYPE

| SES    | COMMUNITY TYPE | NLS 1972    |               |       |      | HSB 1980    |               |       |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|----------------|-------------|---------------|-------|------|-------------|---------------|-------|------|----------------|-------------------------|----------------|
|        |                | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN  | S.D. |                |                         |                |
| LOW    | URBAN          | 1195        | 173866        | 8.67  | 6.8  | 2025        | 161943        | 7.99  | 6.7  | 6.71           | -0.67                   | -0.10          |
| LOW    | SUBURBAN       | 1669        | 271509        | 9.60  | 7.1  | 2678        | 263153        | 8.76  | 6.5  | 6.75           | -0.84 *                 | -0.12          |
| LOW    | RURAL          | 1489        | 231345        | 9.99  | 7.2  | 2600        | 276607        | 8.39  | 6.5  | 6.75           | -1.60 *                 | -0.24          |
| MIDDLE | URBAN          | 1987        | 364531        | 12.13 | 7.0  | 2282        | 226895        | 11.59 | 7.0  | 6.97           | -0.54                   | -0.08          |
| MIDDLE | SUBURBAN       | 3633        | 751238        | 13.43 | 7.0  | 5591        | 622240        | 12.51 | 6.7  | 6.83           | -0.92 *                 | -0.13          |
| MIDDLE | RURAL          | 1671        | 312429        | 12.97 | 7.0  | 3537        | 414501        | 11.94 | 6.8  | 6.86           | -1.02 *                 | -0.15          |
| HIGH   | URBAN          | 903         | 163413        | 16.01 | 6.5  | 946         | 101386        | 15.51 | 6.7  | 6.60           | -0.51                   | -0.08          |
| HIGH   | SUBURBAN       | 2331        | 455088        | 16.99 | 6.1  | 3305        | 384616        | 16.06 | 6.4  | 6.25           | -0.93 *                 | -0.15          |
| HIGH   | RURAL          | 372         | 66836         | 16.01 | 6.4  | 1177        | 138632        | 15.42 | 6.4  | 6.40           | -0.59                   | -0.09          |

\*SIGNIFICANT AT .05 OR LESS

5-4.1

GRADES IN HIGH SCHOOL  
(1=BELOW D; 8=MOSTLY A)

SEX X CURRICULUM

| SEX    | CURRICULUM | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |            | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| MALE   | GENERAL    | 2944        | 498317        | 4.77 | 1.3  | 4730        | 519772        | 5.00 | 1.4  | 1.35           | 0.23 *                  | 0.17           |
| MALE   | ACADEMIC   | 3540        | 728838        | 5.79 | 1.3  | 5004        | 535880        | 6.17 | 1.3  | 1.32           | 0.38 *                  | 0.29           |
| MALE   | VOCATIONAL | 1737        | 279414        | 4.77 | 1.3  | 2908        | 314921        | 5.06 | 1.3  | 1.29           | 0.29 *                  | 0.22           |
| FEMALE | GENERAL    | 2691        | 463502        | 5.43 | 1.4  | 4993        | 532192        | 5.57 | 1.4  | 1.38           | 0.14 *                  | 0.10           |
| FEMALE | ACADEMIC   | 3230        | 654107        | 6.34 | 1.2  | 5231        | 571689        | 6.56 | 1.2  | 1.22           | 0.23 *                  | 0.18           |
| FEMALE | VOCATIONAL | 2428        | 398889        | 5.50 | 1.3  | 3581        | 379345        | 5.66 | 1.3  | 1.31           | 0.15 *                  | 0.12           |

5-4.2

SES X RACE

| SES    | RACE     | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|----------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |          | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | WHITE    | 2622        | 464395        | 5.36 | 1.5  | 4276        | 494242        | 5.45 | 1.4  | 1.45           | 0.10                    | 0.07           |
| LOW    | BLACK    | 1347        | 159372        | 5.07 | 1.3  | 1896        | 178039        | 5.25 | 1.3  | 1.33           | 0.18 *                  | 0.13           |
| LOW    | HISPANIC | 489         | 61050         | 5.10 | 1.4  | 1751        | 93565         | 5.15 | 1.4  | 1.38           | 0.05                    | 0.04           |
| MIDDLE | WHITE    | 6586        | 1356371       | 5.55 | 1.4  | 9933        | 1181692       | 5.77 | 1.4  | 1.40           | 0.22 *                  | 0.16           |
| MIDDLE | BLACK    | 635         | 80621         | 5.16 | 1.3  | 1297        | 114810        | 5.28 | 1.3  | 1.32           | 0.12                    | 0.09           |
| MIDDLE | HISPANIC | 223         | 31815         | 5.21 | 1.3  | 1034        | 68013         | 5.24 | 1.4  | 1.38           | 0.03                    | 0.02           |
| HIGH   | WHITE    | 3547        | 687301        | 6.00 | 1.4  | 5278        | 645596        | 6.18 | 1.4  | 1.38           | 0.19 *                  | 0.13           |
| HIGH   | BLACK    | 111         | 13342         | 5.11 | 1.2  | 318         | 26785         | 5.57 | 1.4  | 1.35           | 0.46                    | 0.34           |
| HIGH   | HISPANIC | 49          | 7282          | 5.50 | 1.4  | 272         | 18636         | 5.56 | 1.3  | 1.31           | 0.06                    | 0.05           |

\*SIGNIFICANT AT .05 OR LESS



# BE21 COBA VAVIVBGE

5-4.3

GRADES IN HIGH SCHOOL  
(1=BELOW D; 8=MOSTLY A)

SES X SCHOOL TYPE

| SES    | SCHOOL TYPE | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|-------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |             | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | PUBLIC      | 4347        | 665677        | 5.22 | 1.4  | 7694        | 763634        | 5.34 | 1.4  | 1.43           | 0.12 *                  | 0.09           |
| LOW    | PRIVATE     | 9           | 1940          | 6.42 | 1.0  | 75          | 11381         | 5.63 | 1.3  | 1.30           | -0.79                   | -0.61          |
| LOW    | CATHOLIC    | 142         | 30552         | 5.91 | 1.3  | 566         | 29165         | 5.86 | 1.4  | 1.36           | -0.05                   | -0.03          |
| MIDDLE | PUBLIC      | 7033        | 1362498       | 5.47 | 1.4  | 11285       | 1287288       | 5.67 | 1.4  | 1.41           | 0.20 *                  | 0.14           |
| MIDDLE | PRIVATE     | 33          | 7890          | 5.45 | 1.3  | 221         | 33625         | 6.06 | 1.3  | 1.34           | 0.61                    | 0.46           |
| MIDDLE | CATHOLIC    | 565         | 137933        | 5.85 | 1.3  | 1236        | 96100         | 5.93 | 1.3  | 1.30           | 0.08                    | 0.06           |
| HIGH   | PUBLIC      | 3424        | 646266        | 5.96 | 1.4  | 4764        | 591150        | 6.12 | 1.4  | 1.41           | 0.16 *                  | 0.11           |
| HIGH   | PRIVATE     | 24          | 6382          | 5.62 | 1.1  | 560         | 57216         | 6.29 | 1.3  | 1.25           | 0.67                    | 0.53           |
| HIGH   | CATHOLIC    | 316         | 66323         | 6.21 | 1.1  | 826         | 71040         | 6.14 | 1.3  | 1.25           | -0.06                   | -0.05          |

5-4.4

SES X GEOGRAPHIC REGION

| SES    | REGION        | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|---------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |               | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | NORTHEAST     | 863         | 162829        | 5.38 | 1.4  | 1655        | 166638        | 5.55 | 1.4  | 1.38           | 0.17                    | 0.12           |
| LOW    | NORTH CENTRAL | 1160        | 210689        | 5.06 | 1.5  | 1948        | 200398        | 5.22 | 1.5  | 1.46           | 0.16                    | 0.11           |
| LOW    | SOUTH         | 2099        | 263362        | 5.35 | 1.4  | 3341        | 319533        | 5.39 | 1.4  | 1.42           | 0.04                    | 0.03           |
| LOW    | WEST          | 667         | 99957         | 5.13 | 1.5  | 1391        | 117611        | 5.27 | 1.4  | 1.41           | 0.14                    | 0.10           |
| MIDDLE | NORTHEAST     | 1832        | 433713        | 5.56 | 1.3  | 2557        | 321711        | 5.83 | 1.3  | 1.31           | 0.26 *                  | 0.20           |
| MIDDLE | NORTH CENTRAL | 2345        | 496047        | 5.36 | 1.4  | 4105        | 453061        | 5.59 | 1.5  | 1.45           | 0.23 *                  | 0.16           |
| MIDDLE | SOUTH         | 2256        | 349749        | 5.63 | 1.4  | 3773        | 388208        | 5.76 | 1.4  | 1.43           | 0.13                    | 0.09           |
| MIDDLE | WEST          | 1451        | 266371        | 5.50 | 1.4  | 2307        | 254032        | 5.64 | 1.4  | 1.40           | 0.14                    | 0.10           |
| HIGH   | NORTHEAST     | 871         | 196885        | 6.03 | 1.3  | 1253        | 184337        | 6.27 | 1.3  | 1.34           | 0.23 *                  | 0.17           |
| HIGH   | NORTH CENTRAL | 1032        | 204171        | 5.87 | 1.3  | 1797        | 192736        | 6.05 | 1.4  | 1.39           | 0.18                    | 0.13           |
| HIGH   | SOUTH         | 1109        | 176926        | 6.08 | 1.4  | 1825        | 181383        | 6.17 | 1.4  | 1.44           | 0.09                    | 0.06           |
| HIGH   | WEST          | 829         | 152998        | 5.94 | 1.4  | 1275        | 160951        | 6.06 | 1.4  | 1.37           | 0.12                    | 0.09           |

\*SIGNIFICANT AT .05 OR LESS

5-4.5

GRADES IN HIGH SCHOOL  
(1=BELOW D; 8=MOSTLY A)

SES X CURRICULUM

| SES    | CURRICULUM | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |            | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | GENERAL    | 1905        | 291672        | 4.97 | 1.4  | 3514        | 341454        | 5.12 | 1.4  | 1.39           | 0.15 *                  | 0.11           |
| LOW    | ACADEMIC   | 1100        | 185782        | 5.90 | 1.3  | 1839        | 166887        | 6.00 | 1.4  | 1.36           | 0.09                    | 0.07           |
| LOW    | VOCATIONAL | 1784        | 259383        | 5.08 | 1.4  | 2819        | 279206        | 5.29 | 1.4  | 1.38           | 0.21 *                  | 0.15           |
| MIDDLE | GENERAL    | 2741        | 496541        | 5.08 | 1.4  | 4803        | 538090        | 5.30 | 1.4  | 1.39           | 0.23 *                  | 0.16           |
| MIDDLE | ACADEMIC   | 3140        | 696326        | 5.91 | 1.3  | 4649        | 508929        | 6.32 | 1.3  | 1.28           | 0.41 *                  | 0.32           |
| MIDDLE | VOCATIONAL | 2002        | 352709        | 5.30 | 1.3  | 3152        | 353541        | 5.43 | 1.3  | 1.33           | 0.13 *                  | 0.10           |
| HIGH   | GENERAL    | 968         | 170186        | 5.33 | 1.4  | 1613        | 196081        | 5.48 | 1.4  | 1.39           | 0.14                    | 0.10           |
| HIGH   | ACADEMIC   | 2516        | 497701        | 6.31 | 1.2  | 3854        | 442733        | 6.56 | 1.2  | 1.24           | 0.25 *                  | 0.20           |
| HIGH   | VOCATIONAL | 357         | 63092         | 5.13 | 1.2  | 634         | 74778         | 5.40 | 1.3  | 1.28           | 0.27                    | 0.21           |

5-4.6

SES X COMMUNITY TYPE

| SES    | COMMUNITY TYPE | NLS 1972    |               |      |      | HSB 1980    |               |      |      | POOLED<br>S.D. | 1980-1972<br>DIFFERENCE | EFFECT<br>SIZE |
|--------|----------------|-------------|---------------|------|------|-------------|---------------|------|------|----------------|-------------------------|----------------|
|        |                | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. | SAMPLE<br>N | WEIGHTED<br>N | MEAN | S.D. |                |                         |                |
| LOW    | URBAN          | 1372        | 197577        | 5.19 | 1.4  | 2419        | 196817        | 5.26 | 1.4  | 1.42           | 0.07                    | 0.05           |
| LOW    | SUBURBAN       | 1728        | 280161        | 5.19 | 1.4  | 3103        | 305581        | 5.28 | 1.4  | 1.39           | 0.09                    | 0.07           |
| LOW    | RURAL          | 1535        | 239407        | 5.40 | 1.5  | 2813        | 301782        | 5.51 | 1.4  | 1.45           | 0.11                    | 0.08           |
| MIDDLE | URBAN          | 2174        | 405151        | 5.41 | 1.4  | 2663        | 266859        | 5.52 | 1.4  | 1.41           | 0.10                    | 0.07           |
| MIDDLE | SUBURBAN       | 3752        | 776124        | 5.50 | 1.4  | 6274        | 703130        | 5.67 | 1.4  | 1.40           | 0.17 *                  | 0.12           |
| MIDDLE | RURAL          | 1742        | 327138        | 5.68 | 1.4  | 3805        | 447024        | 5.85 | 1.4  | 1.39           | 0.17 *                  | 0.12           |
| HIGH   | URBAN          | 966         | 177444        | 5.94 | 1.3  | 1082        | 116816        | 6.21 | 1.4  | 1.38           | 0.27 *                  | 0.20           |
| HIGH   | SUBURBAN       | 2427        | 472603        | 6.01 | 1.4  | 3779        | 447999        | 6.07 | 1.4  | 1.40           | 0.06                    | 0.04           |
| HIGH   | RURAL          | 389         | 70032         | 5.94 | 1.3  | 1289        | 154592        | 6.26 | 1.3  | 1.35           | 0.32 *                  | 0.23           |

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## APPENDIX D

### Test Score Partitioning

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Table D-1

## IRT VOCABULARY Grouping Variable: Total

|        |                     | WEIGHTED N |          | PROPORTION<br>OF POPULATION |       | MEAN SCORE |      | 1980-1972<br>DIFFERENCE | % OF<br>TOTAL<br>CHANGE<br>DUE TO<br>GROUP | TOTAL<br>CHANGE<br>DUE TO<br>POP.<br>SHIFT | TOTAL<br>CHANGE<br>DUE TO<br>SUBGROUP<br>MEAN<br>CHANGES | TOTAL<br>CHANGE<br>DUE TO<br>INTER-<br>ACTION |
|--------|---------------------|------------|----------|-----------------------------|-------|------------|------|-------------------------|--------------------------------------------|--------------------------------------------|----------------------------------------------------------|-----------------------------------------------|
|        |                     | 1972       | 1980     | 1972                        | 1980  | 1972       | 1980 |                         |                                            |                                            |                                                          |                                               |
| TOTAL  | BY: TOTAL           |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
|        | TOTAL               | 2860430.   | 2666481. | 1.000                       | 1.000 | 6.55       | 5.70 | -0.85*                  | 100.00                                     |                                            |                                                          |                                               |
|        | SUBGROUPS COMBINED: | 2860430.   | 2666481. |                             |       | 6.55       | 5.70 | -0.85*                  | 100.00                                     | -0.00                                      | -0.85                                                    | 0.00                                          |
| TOTAL  | BY: SEX             |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
|        | MALE                | 1425843.   | 1218450. | 0.499                       | 0.473 | 6.44       | 5.90 | -0.54*                  | 33.16                                      |                                            |                                                          |                                               |
|        | FEMALE              | 1433577.   | 1355969. | 0.501                       | 0.527 | 6.67       | 5.69 | -0.98*                  | 66.84                                      |                                            |                                                          |                                               |
|        | SUBGROUPS COMBINED: | 2859421.   | 2574419. |                             |       | 6.55       | 5.79 | -0.77*                  | 100.00                                     | 0.01                                       | -0.76                                                    | -0.01                                         |
| TOTAL  | BY: SES             |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
|        | LOW                 | 693845.    | 707354.  | 0.243                       | 0.272 | 4.59       | 4.05 | -0.53*                  | 25.35                                      |                                            |                                                          |                                               |
|        | MIDDLE              | 1460002.   | 1269007. | 0.512                       | 0.487 | 6.52       | 5.77 | -0.75*                  | 45.70                                      |                                            |                                                          |                                               |
|        | HIGH                | 695762.    | 627386.  | 0.244                       | 0.241 | 6.63       | 7.71 | -0.93*                  | 28.95                                      |                                            |                                                          |                                               |
|        | SUBGROUPS COMBINED: | 2850409.   | 2603746. |                             |       | 6.56       | 5.77 | -0.79*                  | 100.00                                     | -0.06                                      | -0.74                                                    | 0.01                                          |
| TOTAL  | BY: RACE            |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
|        | WHITE+AS+IND        | 2438469.   | 2164617. | 0.881                       | 0.831 | 7.04       | 6.22 | -0.82*                  | 80.44                                      |                                            |                                                          |                                               |
|        | BLACK               | 234726.    | 285008.  | 0.085                       | 0.109 | 3.28       | 3.20 | -0.08                   | 10.31                                      |                                            |                                                          |                                               |
|        | MEXICAN-AMER        | 68274.     | 83936.   | 0.025                       | 0.032 | 3.47       | 3.50 | 0.03                    | 2.59                                       |                                            |                                                          |                                               |
|        | OTH HISPANIC        | 25698.     | 71148.   | 0.009                       | 0.027 | 4.36       | 3.71 | -0.65                   | 6.66                                       |                                            |                                                          |                                               |
|        | SUBGROUPS COMBINED: | 2767167.   | 2604709. |                             |       | 6.60       | 5.73 | -0.87*                  | 100.00                                     | -0.17                                      | -0.73                                                    | 0.03                                          |
| TOTAL  | BY: CURRICULUM      |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
|        | ACADEMIC            | 1322788.   | 1009104. | 0.462                       | 0.384 | 8.29       | 7.62 | -0.67*                  | 48.04                                      |                                            |                                                          |                                               |
|        | VOC+GENERAL         | 1537350.   | 1619997. | 0.538                       | 0.616 | 5.06       | 4.56 | -0.50*                  | 51.96                                      |                                            |                                                          |                                               |
|        | SUBGROUPS COMBINED: | 2860135.   | 2629101. |                             |       | 6.55       | 5.73 | -0.82*                  | 100.00                                     | -0.25                                      | -0.58                                                    | 0.01                                          |
| PUBLIC | BY: SCHOOL TYPE     |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
|        | TOTAL               | 2840628.   | 2399504. | 0.914                       | 0.900 | 6.44       | 5.52 | -0.92*                  | 92.19                                      |                                            |                                                          |                                               |
|        | NON-PUBLIC          | 240567.    | 266977.  | 0.086                       | 0.100 | 6.21       | 7.30 | -0.92*                  | 7.81                                       |                                            |                                                          |                                               |
|        | SUBGROUPS COMBINED: | 2781191.   | 2666481. |                             |       | 6.60       | 5.70 | -0.90*                  | 100.00                                     | 0.02                                       | -0.92                                                    | 0.00                                          |
| URBAN  | BY: COMMUNITY TYPE  |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
|        | TOTAL               | 702623.    | 513906.  | 0.251                       | 0.193 | 6.28       | 5.20 | -1.07*                  | 20.76                                      |                                            |                                                          |                                               |
|        | SUBURBAN            | 1400061.   | 1303509. | 0.530                       | 0.489 | 7.11       | 6.14 | -0.97*                  | 54.90                                      |                                            |                                                          |                                               |
|        | RURAL               | 611217.    | 649066.  | 0.219                       | 0.318 | 5.75       | 5.32 | -0.42*                  | 24.34                                      |                                            |                                                          |                                               |
|        | SUBGROUPS COMBINED: | 2793902.   | 2666481. |                             |       | 6.61       | 5.70 | -0.90*                  | 100.00                                     | -0.09                                      | -0.68                                                    | 0.06                                          |

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|                        |                     | WEIGHTED N |          | PROPORTION<br>OF POPULATION |       | MEAN SCORE |      | 1980-1972<br>DIFFERENCE | % OF<br>TOTAL<br>CHANGE<br>DUE TO<br>GROUP | TOTAL<br>CHANGE<br>DUE TO<br>POP.<br>SHIFT | TOTAL<br>CHANGE<br>DUE TO<br>SUBGROUP<br>MEAN<br>CHANGES | TOTAL<br>CHANGE<br>DUE TO<br>INTER-<br>ACTION |
|------------------------|---------------------|------------|----------|-----------------------------|-------|------------|------|-------------------------|--------------------------------------------|--------------------------------------------|----------------------------------------------------------|-----------------------------------------------|
|                        |                     | 1972       | 1980     | 1972                        | 1980  | 1972       | 1980 |                         |                                            |                                            |                                                          |                                               |
| BY: TOTAL              |                     |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| TOTAL                  | TOTAL               | 2060430.   | 2666481. | 1.000                       | 1.000 | 6.55       | 5.70 | -0.85*                  | 100.00                                     |                                            |                                                          |                                               |
|                        | SUBGROUPS COMBINED: | 2060430.   | 2666481. |                             |       | 6.55       | 5.70 | -0.85*                  | 100.00                                     | -0.00                                      | -0.85                                                    | 0.00                                          |
| BY: GEOG. REGION       |                     |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| TOTAL                  | NORTHEAST           | 777868.    | 609829.  | 0.272                       | 0.229 | 7.33       | 6.48 | -0.86*                  | 26.97                                      |                                            |                                                          |                                               |
| TOTAL                  | N. CENTRAL          | 831402.    | 785432.  | 0.291                       | 0.295 | 6.58       | 5.85 | -0.74*                  | 25.52                                      |                                            |                                                          |                                               |
| TOTAL                  | SOUTH               | 773440.    | 806215.  | 0.270                       | 0.302 | 5.63       | 4.84 | -0.80*                  | 31.81                                      |                                            |                                                          |                                               |
| TOTAL                  | WEST                | 477727.    | 465005.  | 0.167                       | 0.174 | 6.71       | 5.94 | -0.77*                  | 15.70                                      |                                            |                                                          |                                               |
|                        | SUBGROUPS COMBINED: | 2060430.   | 2666481. |                             |       | 6.55       | 5.70 | -0.85*                  | 100.00                                     | -0.06                                      | -0.79                                                    | 0.00                                          |
| BY: HOMEWORK/HK        |                     |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| TOTAL                  | L.T. 5 HOURS        | 1845836.   | 2001304. | 0.648                       | 0.753 | 6.17       | 5.26 | -0.91*                  | 85.20                                      |                                            |                                                          |                                               |
| TOTAL                  | 5 HOURS, MORE       | 1000873.   | 655264.  | 0.352                       | 0.247 | 7.29       | 7.08 | -0.20                   | 14.80                                      |                                            |                                                          |                                               |
|                        | SUBGROUPS COMBINED: | 2846709.   | 2656567. |                             |       | 6.56       | 5.71 | -0.86*                  | 100.00                                     | -0.12                                      | -0.66                                                    | -0.07                                         |
| BY: MORE AC EMPHASIS   |                     |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| TOTAL                  | AGREE               | 1254152.   | 1755863. | 0.503                       | 0.718 | 5.93       | 5.64 | -0.28*                  | 42.19                                      |                                            |                                                          |                                               |
| TOTAL                  | DISAGREE            | 1239234.   | 689406.  | 0.497                       | 0.282 | 7.04       | 5.91 | -1.13*                  | 57.81                                      |                                            |                                                          |                                               |
|                        | SUBGROUPS COMBINED: | 2493386.   | 2445268. |                             |       | 6.48       | 5.72 | -0.76*                  | 100.00                                     | -0.24                                      | -0.70                                                    | 0.18                                          |
| BY: WHITE IN SCHOOL    |                     |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| TOTAL                  | 0-89%               | 991459.    | 1101395. | 0.356                       | 0.434 | 5.62       | 5.14 | -0.48*                  | 34.08                                      |                                            |                                                          |                                               |
| TOTAL                  | 90-100%             | 1791635.   | 1435905. | 0.644                       | 0.566 | 7.06       | 6.17 | -0.89*                  | 65.92                                      |                                            |                                                          |                                               |
|                        | SUBGROUPS COMBINED: | 2783094.   | 2537300. |                             |       | 6.54       | 5.73 | -0.82*                  | 100.00                                     | -0.11                                      | -0.74                                                    | 0.03                                          |
| BY: EDUCATION PLANNED  |                     |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| LESS THAN HS           | TOTAL               | 47186.     | 10698.   | 0.022                       | 0.004 | 4.28       | 2.66 | -1.62*                  | -3.09                                      |                                            |                                                          |                                               |
| HIGH SCHOOL            | TOTAL               | 362347.    | 502502.  | 0.167                       | 0.193 | 5.44       | 3.81 | -1.63*                  | 24.71                                      |                                            |                                                          |                                               |
| VOC/JR COL             | TOTAL               | 661843.    | 907915.  | 0.305                       | 0.348 | 6.00       | 4.71 | -1.29*                  | 34.25                                      |                                            |                                                          |                                               |
| COLLEGE                | TOTAL               | 820637.    | 662089.  | 0.379                       | 0.254 | 8.30       | 6.83 | -1.47*                  | 35.13                                      |                                            |                                                          |                                               |
| GRAD/PROF              | TOTAL               | 275204.    | 524265.  | 0.127                       | 0.201 | 9.60       | 8.07 | -1.54*                  | 9.01                                       |                                            |                                                          |                                               |
|                        | SUBGROUPS COMBINED: | 2167297.   | 2607470. |                             |       | 7.20       | 5.74 | -1.46*                  | 100.00                                     | -0.00                                      | -1.45                                                    | 0.00                                          |
| BY: STUDY AIDS IN HOME |                     |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| 2 OR FEWER             | TOTAL               | 565548.    | 820351.  | 0.198                       | 0.308 | 5.12       | 4.59 | -0.53*                  | 37.64                                      |                                            |                                                          |                                               |
| 3 OR MORE              | TOTAL               | 2294897.   | 1846130. | 0.802                       | 0.692 | 6.91       | 6.19 | -0.71*                  | 62.36                                      |                                            |                                                          |                                               |
|                        | SUBGROUPS COMBINED: | 2860430.   | 2666481. |                             |       | 6.55       | 5.70 | -0.85*                  | 100.00                                     | -0.20                                      | -0.66                                                    | 0.02                                          |

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|                                                        |       | WEIGHTED N |          | PROPORTION OF POPULATION |       | MEAN SCORE |      | 1980-1972 DIFFERENCE | % OF TOTAL CHANGE DUE TO GROUP | TOTAL CHANGE DUE TO POP. SHIFT | TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES | TOTAL CHANGE DUE TO INTER-ACTION |
|--------------------------------------------------------|-------|------------|----------|--------------------------|-------|------------|------|----------------------|--------------------------------|--------------------------------|-------------------------------------------|----------------------------------|
|                                                        |       | 1972       | 1980     | 1972                     | 1980  | 1972       | 1980 |                      |                                |                                |                                           |                                  |
| BY: PROJECTS/LABS USED IN COURSES THIS YEAR            |       |            |          |                          |       |            |      |                      |                                |                                |                                           |                                  |
| NEVER, SELDOM                                          | TOTAL | 1437820.   | 1464632. | 0.514                    | 0.566 | 6.08       | 5.27 | -0.81*               | 57.16                          |                                |                                           |                                  |
| OFTEN, FREQ.                                           | TOTAL | 1356071.   | 1122004. | 0.486                    | 0.434 | 7.17       | 6.40 | -0.78*               | 42.84                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2794691.   | 2586716. |                          |       | 6.61       | 5.76 | -0.85*               | 100.00                         | -0.86                          | -0.79                                     | -0.00                            |
| BY: ESSAYS USED IN COURSES THIS YEAR                   |       |            |          |                          |       |            |      |                      |                                |                                |                                           |                                  |
| NEVER, SELDOM                                          | TOTAL | 995896.    | 949652.  | 0.355                    | 0.369 | 5.92       | 4.95 | -0.97*               | 43.39                          |                                |                                           |                                  |
| OFTEN, FREQ.                                           | TOTAL | 1805717.   | 1621616. | 0.645                    | 0.631 | 6.97       | 6.22 | -0.75*               | 56.61                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2801613.   | 2571268. |                          |       | 6.60       | 5.75 | -0.85*               | 100.00                         | -0.81                          | -0.83                                     | -0.00                            |
| BY: PROPORTION OF FT TEACHERS WITH ADVANCED DEGREES    |       |            |          |                          |       |            |      |                      |                                |                                |                                           |                                  |
| 0-49%                                                  | TOTAL | 1904970.   | 1359840. | 0.674                    | 0.526 | 6.29       | 5.45 | -0.84*               | 46.94                          |                                |                                           |                                  |
| 50-100%                                                | TOTAL | 951880.    | 1224012. | 0.326                    | 0.474 | 7.10       | 5.97 | -1.13*               | 53.06                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2866850.   | 2583852. |                          |       | 6.56       | 5.70 | -0.86*               | 100.00                         | 0.12                           | -0.93                                     | -0.04                            |
| BY: PROPORTION OF LAST YEAR'S GRADUATES NOW IN COLLEGE |       |            |          |                          |       |            |      |                      |                                |                                |                                           |                                  |
| 0-30%                                                  | TOTAL | 320994.    | 477376.  | 0.113                    | 0.183 | 4.96       | 4.57 | -0.39*               | 21.57                          |                                |                                           |                                  |
| 30-49%                                                 | TOTAL | 1072007.   | 1012141. | 0.378                    | 0.389 | 6.05       | 5.38 | -0.67*               | 31.35                          |                                |                                           |                                  |
| 50-69%                                                 | TOTAL | 937672.    | 697691.  | 0.331                    | 0.268 | 6.86       | 5.93 | -0.93*               | 31.63                          |                                |                                           |                                  |
| 70-100%                                                | TOTAL | 502310.    | 416105.  | 0.177                    | 0.160 | 8.08       | 7.43 | -0.65*               | 15.45                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2832982.   | 2603393. |                          |       | 6.55       | 5.71 | -0.85*               | 100.00                         | -0.16                          | -0.72                                     | 0.04                             |
| BY: HIGH SCHOOL OFFERS ADVANCED PLACEMENT COURSES      |       |            |          |                          |       |            |      |                      |                                |                                |                                           |                                  |
| YES AP                                                 | TOTAL | 814253.    | 1205570. | 0.318                    | 0.467 | 7.13       | 6.18 | -0.95*               | 41.73                          |                                |                                           |                                  |
| NO AP                                                  | TOTAL | 1746361.   | 1378247. | 0.682                    | 0.533 | 6.31       | 5.29 | -1.02*               | 58.27                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2560614.   | 2583816. |                          |       | 6.57       | 5.71 | -0.87*               | 100.00                         | 0.12                           | -1.00                                     | 0.01                             |
| BY: SEMESTERS OF MATHEMATICS TAKEN SOPH-SENIOR YEAR    |       |            |          |                          |       |            |      |                      |                                |                                |                                           |                                  |
| 4 OR FEWER                                             | TOTAL | 2030138.   | 1655776. | 0.710                    | 0.621 | 6.08       | 5.04 | -1.04*               | 70.69                          |                                |                                           |                                  |
| 5 OR MORE                                              | TOTAL | 830300.    | 1010706. | 0.290                    | 0.379 | 7.71       | 6.76 | -0.95*               | 29.31                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2860438.   | 2666481. |                          |       | 6.55       | 5.70 | -0.85*               | 100.00                         | 0.14                           | -1.01                                     | 0.01                             |
| BY: SEMESTERS OF SCIENCE TAKEN SOPH-SENIOR YEAR        |       |            |          |                          |       |            |      |                      |                                |                                |                                           |                                  |
| 4 OR FEWER                                             | TOTAL | 2171382.   | 1995678. | 0.759                    | 0.748 | 6.16       | 5.12 | -1.04*               | 91.24                          |                                |                                           |                                  |
| 5 OR MORE                                              | TOTAL | 689056.    | 670804.  | 0.241                    | 0.252 | 7.79       | 7.44 | -0.35*               | 8.76                           |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2860438.   | 2666481. |                          |       | 6.55       | 5.70 | -0.85*               | 100.00                         | 0.02                           | -0.86                                     | 0.01                             |



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|                                                      |       | WEIGHTED N |          | PROPORTION<br>OF POPULATION |       | MEAN SCORE |      | 1980-1972<br>DIFFERENCE | % OF<br>TOTAL<br>CHANGE<br>DUE TO<br>GROUP | TOTAL<br>CHANGE<br>DUE TO<br>POP.<br>SHIFT | TOTAL<br>CHANGE<br>DUE TO<br>SUBGROUP<br>MEAN<br>CHANGES | TOTAL<br>CHANGE<br>DUE TO<br>INTER-<br>ACTION |
|------------------------------------------------------|-------|------------|----------|-----------------------------|-------|------------|------|-------------------------|--------------------------------------------|--------------------------------------------|----------------------------------------------------------|-----------------------------------------------|
|                                                      |       | 1972       | 1980     | 1972                        | 1980  | 1972       | 1980 |                         |                                            |                                            |                                                          |                                               |
| BY: SEMESTERS OF FOREIGN LANGUAGE TAKEN SOPH-SR YEAR |       |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| 3 OR FEWER                                           | TOTAL | 2090521.   | 2025039. | 0.731                       | 0.759 | 5.85       | 5.08 | -0.77*                  | 71.06                                      |                                            |                                                          |                                               |
| 4 OR MORE                                            | TOTAL | 769917.    | 641442.  | 0.269                       | 0.241 | 8.46       | 7.66 | -0.80*                  | 28.94                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:                                  |       | 2860438.   | 2666481. |                             |       | 6.55       | 5.70 | -0.85*                  | 100.00                                     | -0.07                                      | -0.78                                                    | 0.00                                          |
| BY: PARTICIPATE IN ATHLETICS                         |       |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| NO                                                   | TOTAL | 1559175.   | 1273380. | 0.552                       | 0.483 | 6.55       | 5.57 | -0.98*                  | 55.42                                      |                                            |                                                          |                                               |
| YES                                                  | TOTAL | 1266320.   | 1363250. | 0.448                       | 0.517 | 6.62       | 5.88 | -0.74*                  | 44.58                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:                                  |       | 2825495.   | 2636630. |                             |       | 6.58       | 5.73 | -0.85*                  | 100.00                                     | 0.00                                       | -0.87                                                    | 0.02                                          |
| BY: SCHOOLING MOTHER WANTS FOR STUDENT               |       |            |          |                             |       |            |      |                         |                                            |                                            |                                                          |                                               |
| NO 4-YR COL.                                         | TOTAL | 1005835.   | 851633.  | 0.435                       | 0.402 | 5.25       | 4.37 | -0.89*                  | 31.07                                      |                                            |                                                          |                                               |
| 4-YR COLLEGE                                         | TOTAL | 1307015.   | 1269422. | 0.565                       | 0.598 | 8.14       | 6.96 | -1.19*                  | 68.93                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:                                  |       | 2312850.   | 2121054. |                             |       | 6.89       | 5.92 | -0.97*                  | 100.00                                     | 0.10                                       | -1.05                                                    | -0.01                                         |

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Table D-2

IRT READING  
Grouping Variable: Total

|            |                     | WEIGHTED N |          | PROPORTION<br>OF POPULATION |       | MEAN SCORE |       | 1980-1972<br>DIFFERENCE | % OF<br>TOTAL<br>CHANGE<br>DUE TO<br>GROUP | TOTAL<br>CHANGE<br>DUE TO<br>POP.<br>SHIFT | TOTAL<br>CHANGE<br>DUE TO<br>SUBGROUP<br>MEAN<br>CHANGES | TOTAL<br>CHANGE<br>DUE TO<br>INTER-<br>ACTION |
|------------|---------------------|------------|----------|-----------------------------|-------|------------|-------|-------------------------|--------------------------------------------|--------------------------------------------|----------------------------------------------------------|-----------------------------------------------|
|            |                     | 1972       | 1980     | 1972                        | 1980  | 1972       | 1980  |                         |                                            |                                            |                                                          |                                               |
| TOTAL      | BY: TOTAL           |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
|            | TOTAL               | 2863482.   | 2658958. | 1.000                       | 1.000 | 9.89       | 8.84  | -1.05*                  | 100.00                                     |                                            |                                                          |                                               |
|            | SUBGROUPS COMBINED: | 2863482.   | 2658958. |                             |       | 9.89       | 8.84  | -1.05*                  | 100.00                                     | -0.00                                      | -1.05                                                    | 0.00                                          |
| TOTAL      | BY: SEX             |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
|            | MALE                | 1427414.   | 1215335. | 0.499                       | 0.473 | 9.83       | 8.95  | -0.88*                  | 44.53                                      |                                            |                                                          |                                               |
| TOTAL      | FEMALE              | 1435051.   | 1352068. | 0.501                       | 0.527 | 9.95       | 8.96  | -0.99*                  | 55.47                                      |                                            |                                                          |                                               |
|            | SUBGROUPS COMBINED: | 2862465.   | 2567403. |                             |       | 9.89       | 8.95  | -0.93*                  | 100.00                                     | 0.00                                       | -0.93                                                    | -0.00                                         |
| TOTAL      | BY: SES             |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
|            | LOW                 | 695440.    | 705500.  | 0.244                       | 0.272 | 7.65       | 6.73  | -0.92*                  | 32.37                                      |                                            |                                                          |                                               |
| TOTAL      | MIDDLE              | 1461882.   | 1264873. | 0.512                       | 0.487 | 9.92       | 9.05  | -0.86*                  | 43.64                                      |                                            |                                                          |                                               |
|            | HIGH                | 695829.    | 626850.  | 0.244                       | 0.241 | 12.13      | 11.20 | -0.94*                  | 23.99                                      |                                            |                                                          |                                               |
|            | SUBGROUPS COMBINED: | 2853152.   | 2597223. |                             |       | 9.90       | 8.94  | -0.97*                  | 100.00                                     | -0.07                                      | -0.90                                                    | -0.00                                         |
| TOTAL      | BY: RACE            |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
|            | WHITE+AS+IND        | 2439707.   | 2159015. | 0.881                       | 0.831 | 10.51      | 9.57  | -0.94*                  | 74.69                                      |                                            |                                                          |                                               |
| TOTAL      | BLACK               | 235572.    | 283823.  | 0.085                       | 0.109 | 5.94       | 5.56  | -0.38                   | 12.92                                      |                                            |                                                          |                                               |
|            | MEXICAN-AMER        | 68498.     | 83914.   | 0.025                       | 0.032 | 6.28       | 5.60  | -0.69                   | 4.63                                       |                                            |                                                          |                                               |
| TOTAL      | OTH HISPANIC        | 25874.     | 71074.   | 0.009                       | 0.027 | 6.49       | 5.72  | -0.77                   | 7.76                                       |                                            |                                                          |                                               |
|            | SUBGROUPS COMBINED: | 2769651.   | 2597826. |                             |       | 9.98       | 8.89  | -1.08*                  | 100.00                                     | -0.21                                      | -0.89                                                    | 0.02                                          |
| TOTAL      | BY: CURRICULUM      |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
|            | ACADEMIC            | 1323908.   | 1006476. | 0.462                       | 0.384 | 11.99      | 11.33 | -0.66*                  | 41.41                                      |                                            |                                                          |                                               |
| TOTAL      | VOC+GENERAL         | 1539272.   | 1615794. | 0.538                       | 0.616 | 8.08       | 7.35  | -0.73*                  | 58.59                                      |                                            |                                                          |                                               |
|            | SUBGROUPS COMBINED: | 2863180.   | 2622270. |                             |       | 9.89       | 8.88  | -1.01*                  | 100.00                                     | -0.31                                      | -0.69                                                    | -0.01                                         |
| PUBLIC     | BY: SCHOOL TYPE     |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
|            | TOTAL               | 2543636.   | 2391769. | 0.914                       | 0.900 | 9.78       | 8.66  | -1.12*                  | 91.74                                      |                                            |                                                          |                                               |
| NON-PUBLIC | TOTAL               | 240395.    | 267189.  | 0.086                       | 0.100 | 11.59      | 10.46 | -1.14*                  | 8.26                                       |                                            |                                                          |                                               |
|            | SUBGROUPS COMBINED: | 2784031.   | 2658958. |                             |       | 9.93       | 8.84  | -1.10*                  | 100.00                                     | 0.03                                       | -1.12                                                    | -0.00                                         |
| URBAN      | BY: COMMUNITY TYPE  |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
|            | TOTAL               | 703504.    | 511844.  | 0.252                       | 0.192 | 9.46       | 8.21  | -1.25*                  | 18.74                                      |                                            |                                                          |                                               |
| SUBURBAN   | TOTAL               | 1481264.   | 1298837. | 0.530                       | 0.488 | 10.49      | 9.29  | -1.20*                  | 53.95                                      |                                            |                                                          |                                               |
|            | TOTAL               | 612151.    | 848277.  | 0.219                       | 0.319 | 9.27       | 8.52  | -0.74*                  | 27.31                                      |                                            |                                                          |                                               |
|            | SUBGROUPS COMBINED: | 2796919.   | 2658958. |                             |       | 9.96       | 8.84  | -1.12*                  | 100.00                                     | -0.06                                      | -1.11                                                    | 0.05                                          |

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INT READING

GROUPING VARIABLE: TOTAL

|                        |              | WEIGHTED N |          | PROPORTION OF POPULATION |       | MEAN SCORE |       | 1980-1972 DIFFERENCE | % OF TOTAL CHANGE DUE TO GROUP | TOTAL CHANGE DUE TO POP. SHIFT | TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES | TOTAL CHANGE DUE TO INTER-ACTION |
|------------------------|--------------|------------|----------|--------------------------|-------|------------|-------|----------------------|--------------------------------|--------------------------------|-------------------------------------------|----------------------------------|
|                        |              | 1972       | 1980     | 1972                     | 1980  | 1972       | 1980  |                      |                                |                                |                                           |                                  |
| BY: GEOG. REGION       |              |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| TOTAL                  | NORTHEAST    | 777802.    | 605302.  | 0.272                    | 0.228 | 10.55      | 9.57  | -0.98*               | 23.99                          |                                |                                           |                                  |
| TOTAL                  | M. CENTRAL   | 833505.    | 783970.  | 0.291                    | 0.295 | 9.97       | 9.21  | -0.76*               | 21.34                          |                                |                                           |                                  |
| TOTAL                  | SOUTH        | 773939.    | 806228.  | 0.270                    | 0.303 | 9.14       | 7.83  | -1.31*               | 40.27                          |                                |                                           |                                  |
| TOTAL                  | WEST         | 478236.    | 463458.  | 0.167                    | 0.174 | 9.88       | 9.01  | -0.87*               | 14.40                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:    |              | 2663482.   | 2658958. |                          |       | 9.89       | 8.84  | -1.05*               | 100.00                         | -0.05                          | -0.99                                     | -0.01                            |
| BY: HOMEWORK/WK        |              |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| TOTAL                  | L.T. 5 HOURS | 1847871.   | 1994447. | 0.648                    | 0.753 | 9.42       | 8.25  | -1.17*               | 88.59                          |                                |                                           |                                  |
| TOTAL                  | 5 HOURS MORE | 1001820.   | 655167.  | 0.352                    | 0.247 | 10.78      | 10.66 | -0.11                | 11.41                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:    |              | 2849691.   | 2649615. |                          |       | 9.90       | 8.85  | -1.05*               | 100.00                         | -0.14                          | -0.80                                     | -0.11                            |
| BY: MORE AC EMPHASIS   |              |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| TOTAL                  | AGREE        | 1256334.   | 1750236. | 0.503                    | 0.718 | 9.11       | 8.79  | -0.32*               | 41.67                          |                                |                                           |                                  |
| TOTAL                  | DISAGREE     | 1240246.   | 687661.  | 0.497                    | 0.282 | 10.49      | 9.15  | -1.34*               | 58.33                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:    |              | 2496580.   | 2437897. |                          |       | 9.80       | 8.89  | -0.91*               | 100.00                         | -0.30                          | -0.83                                     | 0.22                             |
| BY: %WHITE IN SCHOOL   |              |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| TOTAL                  | 0-89%        | 993257.    | 1096594. | 0.357                    | 0.433 | 8.83       | 8.03  | -0.80*               | 42.03                          |                                |                                           |                                  |
| TOTAL                  | 90-100%      | 1792723.   | 1433466. | 0.643                    | 0.567 | 10.47      | 9.50  | -0.96*               | 57.97                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:    |              | 2785980.   | 2530061. |                          |       | 9.88       | 8.86  | -1.02*               | 100.00                         | -0.13                          | -0.91                                     | 0.01                             |
| BY: EDUCATION PLANNED  |              |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| LESS THAN HS           | TOTAL        | 47273.     | 10698.   | 0.022                    | 0.004 | 6.20       | 3.36  | -2.83*               | -3.69                          |                                |                                           |                                  |
| HIGH SCHOOL            | TOTAL        | 362691.    | 500280.  | 0.167                    | 0.192 | 8.55       | 6.01  | -2.54*               | 28.88                          |                                |                                           |                                  |
| VOC/JR COL             | TOTAL        | 662633.    | 906129.  | 0.305                    | 0.348 | 9.48       | 7.73  | -1.75*               | 35.23                          |                                |                                           |                                  |
| COLLEGE                | TOTAL        | 821503.    | 659693.  | 0.379                    | 0.254 | 12.22      | 10.60 | -1.62*               | 31.17                          |                                |                                           |                                  |
| GRAD/PROF              | TOTAL        | 275156.    | 523756.  | 0.127                    | 0.201 | 13.48      | 11.70 | -1.78*               | 8.41                           |                                |                                           |                                  |
| SUBGROUPS COMBINED:    |              | 2169256.   | 2600556. |                          |       | 10.80      | 8.91  | -1.89*               | 100.00                         | -0.01                          | -1.86                                     | -0.02                            |
| BY: STUDY AIDS IN HOME |              |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| 2 OR FEWER             | TOTAL        | 566472.    | 817187.  | 0.198                    | 0.307 | 8.34       | 7.40  | -0.94*               | 43.60                          |                                |                                           |                                  |
| 3 OR MORE              | TOTAL        | 2297010.   | 1841770. | 0.802                    | 0.693 | 10.27      | 9.47  | -0.79*               | 56.40                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:    |              | 2863482.   | 2658958. |                          |       | 9.89       | 8.84  | -1.05*               | 100.00                         | -0.21                          | -0.82                                     | -0.02                            |

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|                                                        |       | WEIGHTED N |          | PROPORTION OF POPULATION |       | MEAN SCORE |       | 1980-1972 DIFFERENCE | % OF TOTAL CHANGE DUE TO GROUP | TOTAL CHANGE DUE TO POP. SHIFT | TOTAL CHANGE DUE TO SUBGROUP MEAN CHANGES | TOTAL CHANGE DUE TO INTER-ACTION |
|--------------------------------------------------------|-------|------------|----------|--------------------------|-------|------------|-------|----------------------|--------------------------------|--------------------------------|-------------------------------------------|----------------------------------|
|                                                        |       | 1972       | 1980     | 1972                     | 1980  | 1972       | 1980  |                      |                                |                                |                                           |                                  |
| BY: PROJECTS/LABS USED IN COURSES THIS YEAR            |       |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| NEVER, SELDOM                                          | TOTAL | 1430807.   | 1450606. | 0.514                    | 0.565 | 9.32       | 8.24  | -1.08*               | 61.62                          |                                |                                           |                                  |
| OFTEN, FREQ.                                           | TOTAL | 1350603.   | 1121409. | 0.486                    | 0.435 | 10.66      | 9.83  | -0.84*               | 38.38                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2797490.   | 2580015. |                          |       | 9.97       | 8.93  | -1.04*               | 100.00                         | -0.07                          | -0.96                                     | -0.01                            |
| BY: ESSAYS USED IN COURSES THIS YEAR                   |       |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| NEVER, SELDOM                                          | TOTAL | 997056.    | 947335.  | 0.356                    | 0.369 | 9.17       | 7.87  | -1.30*               | 46.90                          |                                |                                           |                                  |
| OFTEN, FREQ.                                           | TOTAL | 1807355.   | 1617189. | 0.644                    | 0.631 | 10.41      | 9.53  | -0.87*               | 53.10                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2804411.   | 2564524. |                          |       | 9.97       | 8.92  | -1.05*               | 100.00                         | -0.02                          | -1.03                                     | -0.01                            |
| BY: PROPORTION OF FT TEACHERS WITH ADVANCED DEGREES    |       |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| 0-49%                                                  | TOTAL | 1907401.   | 1357989. | 0.674                    | 0.527 | 9.63       | 8.60  | -1.03*               | 48.12                          |                                |                                           |                                  |
| 50-100%                                                | TOTAL | 922414.    | 1210510. | 0.326                    | 0.473 | 10.42      | 9.11  | -1.32*               | 51.88                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2829895.   | 2576507. |                          |       | 9.89       | 8.84  | -1.05*               | 100.00                         | 0.12                           | -1.12                                     | -0.04                            |
| BY: PROPORTION OF LAST YEAR'S GRADUATES NOW IN COLLEGE |       |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| 0-30%                                                  | TOTAL | 322141.    | 475223.  | 0.114                    | 0.183 | 8.01       | 7.55  | -0.46*               | 20.75                          |                                |                                           |                                  |
| 30-49%                                                 | TOTAL | 1073598.   | 1011020. | 0.379                    | 0.389 | 9.45       | 8.51  | -0.93*               | 35.59                          |                                |                                           |                                  |
| 50-69%                                                 | TOTAL | 937736.    | 692848.  | 0.331                    | 0.267 | 10.26      | 9.21  | -1.05*               | 29.27                          |                                |                                           |                                  |
| 70-100%                                                | TOTAL | 502327.    | 417165.  | 0.177                    | 0.161 | 11.35      | 10.57 | -0.78*               | 14.39                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2835002.   | 2596256. |                          |       | 9.89       | 8.85  | -1.04*               | 100.00                         | -0.18                          | -0.89                                     | 0.04                             |
| BY: HIGH SCHOOL OFFERS ADVANCED PLACEMENT COURSES      |       |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| YES AP                                                 | TOTAL | 815417.    | 1200793. | 0.318                    | 0.466 | 10.47      | 9.28  | -1.19*               | 43.75                          |                                |                                           |                                  |
| NO AP                                                  | TOTAL | 1747498.   | 1375595. | 0.682                    | 0.534 | 9.66       | 8.45  | -1.21*               | 56.25                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2562915.   | 2576388. |                          |       | 9.92       | 8.84  | -1.08*               | 100.00                         | 0.12                           | -1.20                                     | 0.00                             |
| BY: SEMESTERS OF MATHEMATICS TAKEN SOPH-SENIOR YEAR    |       |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| 4 OR FEWER                                             | TOTAL | 2032255.   | 1650791. | 0.710                    | 0.621 | 9.27       | 7.98  | -1.29*               | 71.26                          |                                |                                           |                                  |
| 5 OR MORE                                              | TOTAL | 831227.    | 1008166. | 0.290                    | 0.379 | 11.38      | 10.24 | -1.15*               | 28.74                          |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2863482.   | 2658958. |                          |       | 9.89       | 8.84  | -1.05*               | 100.00                         | 0.19                           | -1.25                                     | 0.01                             |
| BY: SEMESTERS OF SCIENCE TAKEN SOPH-SENIOR YEAR        |       |            |          |                          |       |            |       |                      |                                |                                |                                           |                                  |
| 4 OR FEWER                                             | TOTAL | 2173506.   | 1988932. | 0.759                    | 0.748 | 9.38       | 8.10  | -1.28*               | 91.01                          |                                |                                           |                                  |
| 5 OR MORE                                              | TOTAL | 689976.    | 670026.  | 0.241                    | 0.252 | 11.47      | 11.02 | -0.44*               | 8.99                           |                                |                                           |                                  |
| SUBGROUPS COMBINED:                                    |       | 2863482.   | 2658958. |                          |       | 9.89       | 8.84  | -1.05*               | 100.00                         | 0.02                           | -1.08                                     | 0.01                             |

|                                                      |       | <u>WEIGHTED N</u> |          | <u>PROPORTION<br/>OF POPULATION</u> |       | <u>MEAN SCORE</u> |       | <u>1980-1972<br/>DIFFERENCE</u> | <u>% OF<br/>TOTAL<br/>CHANGE<br/>DUE TO<br/>GROUP</u> | <u>TOTAL<br/>CHANGE<br/>DUE TO<br/>POP.<br/>SHIFT</u> | <u>TOTAL<br/>CHANGE<br/>DUE TO<br/>SUBGROUP<br/>MEAN<br/>CHANGES</u> | <u>TOTAL<br/>CHANGE<br/>DUE TO<br/>INTER-<br/>ACTION</u> |
|------------------------------------------------------|-------|-------------------|----------|-------------------------------------|-------|-------------------|-------|---------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------|
|                                                      |       | 1972              | 1980     | 1972                                | 1980  | 1972              | 1980  |                                 |                                                       |                                                       |                                                                      |                                                          |
| BY: SEMESTERS OF FOREIGN LANGUAGE TAKEN SOPH-SR YEAR |       |                   |          |                                     |       |                   |       |                                 |                                                       |                                                       |                                                                      |                                                          |
| 3 OR FEWER                                           | TOTAL | 2093906.          | 2019138. | 0.731                               | 0.759 | 9.04              | 8.09  | -0.95*                          | 71.13                                                 |                                                       |                                                                      |                                                          |
| 4 OR MORE                                            | TOTAL | 769577.           | 639819.  | 0.269                               | 0.241 | 12.18             | 11.19 | -0.99*                          | 28.87                                                 |                                                       |                                                                      |                                                          |
| SUBGROUPS COMBINED:                                  |       | 2863482.          | 2658958. |                                     |       | 9.89              | 8.84  | -1.05*                          | 100.00                                                | -0.09                                                 | -0.96                                                                | 0.00                                                     |
| BY: PARTICIPATE IN ATHLETICS                         |       |                   |          |                                     |       |                   |       |                                 |                                                       |                                                       |                                                                      |                                                          |
| NO                                                   | TOTAL | 1560839.          | 1269913. | 0.552                               | 0.483 | 9.76              | 8.66  | -1.09*                          | 49.56                                                 |                                                       |                                                                      |                                                          |
| YES                                                  | TOTAL | 1267496.          | 1359451. | 0.448                               | 0.517 | 10.13             | 9.09  | -1.04*                          | 50.44                                                 |                                                       |                                                                      |                                                          |
| SUBGROUPS COMBINED:                                  |       | 2828335.          | 2629364. |                                     |       | 9.92              | 8.88  | -1.04*                          | 100.00                                                | 0.03                                                  | -1.07                                                                | 0.00                                                     |
| BY: SCHOOLING MOTHER WANTS FOR STUDENT               |       |                   |          |                                     |       |                   |       |                                 |                                                       |                                                       |                                                                      |                                                          |
| NO 4-YR COL.                                         | TOTAL | 1007236.          | 849489.  | 0.435                               | 0.401 | 8.33              | 7.11  | -1.22*                          | 34.69                                                 |                                                       |                                                                      |                                                          |
| 4-YR COLLEGE                                         | TOTAL | 1308207.          | 1266371. | 0.565                               | 0.599 | 11.94             | 10.54 | -1.41*                          | 65.31                                                 |                                                       |                                                                      |                                                          |
| SUBGROUPS COMBINED:                                  |       | 2315443.          | 2115860. |                                     |       | 10.37             | 9.16  | -1.21*                          | 100.00                                                | 0.12                                                  | -1.32                                                                | -0.01                                                    |

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IRT MATHEMATICS  
Grouping Variable: Total

|                     |              | WEIGHTED N |          | PROPORTION<br>OF POPULATION |       | MEAN SCORE |       | 1980-1972<br>DIFFERENCE | % OF<br>TOTAL<br>CHANGE<br>DUE TO<br>GROUP | TOTAL<br>CHANGE<br>DUE TO<br>POP.<br>SHIFT | TOTAL<br>CHANGE<br>DUE TO<br>SUBGROUP<br>MEAN<br>CHANGES | TOTAL<br>CHANGE<br>DUE TO<br>INTER-<br>ACTION |
|---------------------|--------------|------------|----------|-----------------------------|-------|------------|-------|-------------------------|--------------------------------------------|--------------------------------------------|----------------------------------------------------------|-----------------------------------------------|
|                     |              | 1972       | 1980     | 1972                        | 1980  | 1972       | 1980  |                         |                                            |                                            |                                                          |                                               |
| BY: TOTAL           |              |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| TOTAL               | TOTAL        | 2862252.   | 2650446. | 1.000                       | 1.000 | 12.94      | 11.90 | -1.03*                  | 100.00                                     |                                            |                                                          |                                               |
| SUBGROUPS COMBINED: |              | 2862252.   | 2650446. |                             |       | 12.94      | 11.90 | -1.03*                  | 100.00                                     | -0.00                                      | -1.03                                                    | 0.00                                          |
| BY: SEX             |              |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| TOTAL               | MALE         | 1426314.   | 1213609. | 0.498                       | 0.474 | 13.79      | 12.63 | -0.96*                  | 55.01                                      |                                            |                                                          |                                               |
| TOTAL               | FEMALE       | 1434921.   | 1346152. | 0.502                       | 0.526 | 12.09      | 11.39 | -0.70*                  | 44.99                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED: |              | 2861235.   | 2559761. |                             |       | 12.94      | 12.07 | -0.87*                  | 100.00                                     | -0.04                                      | -0.83                                                    | 0.01                                          |
| BY: SES             |              |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| TOTAL               | LOW          | 694282.    | 701703.  | 0.243                       | 0.271 | 9.39       | 8.44  | -0.95*                  | 38.74                                      |                                            |                                                          |                                               |
| TOTAL               | MIDDLE       | 1461863.   | 1263636. | 0.513                       | 0.488 | 12.90      | 12.16 | -0.74*                  | 39.32                                      |                                            |                                                          |                                               |
| TOTAL               | HIGH         | 696135.    | 624635.  | 0.244                       | 0.241 | 16.62      | 15.83 | -0.79*                  | 21.94                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED: |              | 2852280.   | 2589974. |                             |       | 12.96      | 12.04 | -0.92*                  | 100.00                                     | -0.11                                      | -0.81                                                    | -0.01                                         |
| BY: RACE            |              |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| TOTAL               | WHITE+AS+IND | 2439673.   | 2153015. | 0.881                       | 0.831 | 13.90      | 12.97 | -0.93*                  | 74.28                                      |                                            |                                                          |                                               |
| TOTAL               | BLACK        | 235045.    | 284281.  | 0.085                       | 0.110 | 6.50       | 6.69  | 0.19                    | 13.01                                      |                                            |                                                          |                                               |
| TOTAL               | MEXICAN-AMER | 68165.     | 82650.   | 0.025                       | 0.032 | 8.02       | 7.54  | -0.48                   | 4.77                                       |                                            |                                                          |                                               |
| TOTAL               | OTH HISPANIC | 25837.     | 69596.   | 0.009                       | 0.027 | 7.48       | 7.90  | 0.41                    | 7.94                                       |                                            |                                                          |                                               |
| SUBGROUPS COMBINED: |              | 2768720.   | 2589543. |                             |       | 13.07      | 11.97 | -1.09*                  | 100.00                                     | -0.34                                      | -0.81                                                    | 0.05                                          |
| BY: CURRICULUM      |              |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| TOTAL               | ACADEMIC     | 1323927.   | 1007295. | 0.463                       | 0.385 | 16.66      | 16.17 | -0.49*                  | 48.81                                      |                                            |                                                          |                                               |
| TOTAL               | VOC+GENERAL  | 1538022.   | 1606553. | 0.537                       | 0.615 | 9.74       | 9.33  | -0.41*                  | 51.19                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED: |              | 2861949.   | 2613849. |                             |       | 12.94      | 11.96 | -0.98*                  | 100.00                                     | -0.53                                      | -0.45                                                    | 0.01                                          |
| BY: SCHOOL TYPE     |              |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| PUBLIC              | TOTAL        | 2542234.   | 2383107. | 0.914                       | 0.899 | 12.79      | 11.59 | -1.20*                  | 97.01                                      |                                            |                                                          |                                               |
| NON-PUBLIC          | TOTAL        | 240567.    | 267339.  | 0.086                       | 0.101 | 15.37      | 14.71 | -0.67                   | 2.99                                       |                                            |                                                          |                                               |
| SUBGROUPS COMBINED: |              | 2782800.   | 2650446. |                             |       | 13.01      | 11.90 | -1.11*                  | 100.00                                     | 0.04                                       | -1.15                                                    | 0.01                                          |
| BY: COMMUNITY TYPE  |              |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| URBAN               | TOTAL        | 703168.    | 509127.  | 0.251                       | 0.192 | 12.16      | 10.98 | -1.18*                  | 15.41                                      |                                            |                                                          |                                               |
| SUBURBAN            | TOTAL        | 1481125.   | 1295212. | 0.530                       | 0.489 | 13.81      | 12.70 | -1.12*                  | 51.03                                      |                                            |                                                          |                                               |
| RURAL               | TOTAL        | 611858.    | 846107.  | 0.219                       | 0.319 | 12.15      | 11.24 | -0.91*                  | 33.56                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED: |              | 2796151.   | 2650446. |                             |       | 13.04      | 11.90 | -1.13*                  | 100.00                                     | -0.07                                      | -1.09                                                    | 0.02                                          |



|                        |               | WEIGHTED N |          | PROPORTION<br>OF POPULATION |       | MEAN SCORE |       | 1980-1972<br>DIFFERENCE | % OF<br>TOTAL<br>CHANGE<br>DUE TO<br>GROUP | TOTAL<br>CHANGE<br>DUE TO<br>POP.<br>SHIFT | TOTAL<br>CHANGE<br>DUE TO<br>SUBGROUP<br>MEAN<br>CHANGES | TOTAL<br>CHANGE<br>DUE TO<br>INTER-<br>ACTION |
|------------------------|---------------|------------|----------|-----------------------------|-------|------------|-------|-------------------------|--------------------------------------------|--------------------------------------------|----------------------------------------------------------|-----------------------------------------------|
|                        |               | 1972       | 1980     | 1972                        | 1980  | 1972       | 1980  |                         |                                            |                                            |                                                          |                                               |
| BY: GEOG. REGION       |               |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| TOTAL                  | NORTHEAST     | 778067.    | 604620.  | 0.272                       | 0.228 | 13.90      | 13.36 | -0.53                   | 15.82                                      |                                            |                                                          |                                               |
| TOTAL                  | N. CENTRAL    | 833316.    | 783062.  | 0.291                       | 0.295 | 13.29      | 12.59 | -0.70*                  | 19.73                                      |                                            |                                                          |                                               |
| TOTAL                  | SOUTH         | 773173.    | 805015.  | 0.270                       | 0.304 | 11.95      | 10.07 | -1.88*                  | 58.51                                      |                                            |                                                          |                                               |
| TOTAL                  | WEST          | 477695.    | 457749.  | 0.167                       | 0.173 | 12.37      | 12.04 | -0.34                   | 5.94                                       |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:    |               | 2862252.   | 2650446. |                             |       | 12.94      | 11.90 | -1.03*                  | 100.00                                     | -0.08                                      | -0.91                                                    | -0.04                                         |
| BY: HOMEWORK/HK        |               |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| TOTAL                  | L.T. 5 HOURS  | 1847143.   | 1987737. | 0.648                       | 0.753 | 12.11      | 10.86 | -1.25*                  | 99.03                                      |                                            |                                                          |                                               |
| TOTAL                  | 5 HOURS, MORE | 1001429.   | 653119.  | 0.352                       | 0.247 | 14.52      | 15.14 | 0.62*                   | 0.97                                       |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:    |               | 2848572.   | 2640856. |                             |       | 12.96      | 11.92 | -1.04*                  | 100.00                                     | -0.25                                      | -0.59                                                    | -0.19                                         |
| BY: MORE AC EMPHASIS   |               |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| TOTAL                  | AGREE         | 1255178.   | 1743853. | 0.503                       | 0.717 | 12.06      | 11.83 | -0.23                   | 38.72                                      |                                            |                                                          |                                               |
| TOTAL                  | DISAGREE      | 1240098.   | 687015.  | 0.497                       | 0.283 | 13.60      | 12.35 | -1.25*                  | 61.28                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:    |               | 2495276.   | 2430868. |                             |       | 12.82      | 11.98 | -0.85*                  | 100.00                                     | -0.33                                      | -0.74                                                    | 0.22                                          |
| BY: WHITE IN SCHOOL    |               |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| TOTAL                  | 0-8%          | 992048.    | 1094218. | 0.356                       | 0.434 | 11.28      | 10.65 | -0.63*                  | 41.21                                      |                                            |                                                          |                                               |
| TOTAL                  | 90-100%       | 1792950.   | 1427348. | 0.644                       | 0.566 | 13.86      | 12.97 | -0.89*                  | 58.79                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:    |               | 2784997.   | 2521566. |                             |       | 12.94      | 11.96 | -0.98*                  | 100.00                                     | -0.20                                      | -0.60                                                    | 0.02                                          |
| BY: EDUCATION PLANNED  |               |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| LESS THAN HS           | TOTAL         | 47273.     | 10600.   | 0.022                       | 0.004 | 7.06       | 5.26  | -1.80                   | -5.24                                      |                                            |                                                          |                                               |
| HIGH SCHOOL            | TOTAL         | 362642.    | 497903.  | 0.167                       | 0.192 | 10.10      | 7.36  | -2.74*                  | 27.37                                      |                                            |                                                          |                                               |
| VOC/JR COL             | TOTAL         | 662941.    | 903189.  | 0.306                       | 0.348 | 12.02      | 9.83  | -2.19*                  | 37.25                                      |                                            |                                                          |                                               |
| COLLEGE                | TOTAL         | 821320.    | 659451.  | 0.379                       | 0.254 | 17.00      | 14.87 | -2.13*                  | 37.98                                      |                                            |                                                          |                                               |
| GRAD/PROF              | TOTAL         | 275284.    | 522499.  | 0.127                       | 0.201 | 18.55      | 16.68 | -1.87*                  | 2.64                                       |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:    |               | 2169461.   | 2593643. |                             |       | 14.30      | 12.00 | -2.31*                  | 100.00                                     | -0.09                                      | -2.21                                                    | -0.00                                         |
| BY: STUDY AIDS IN HOME |               |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| 2 OR FEWER             | TOTAL         | 565486.    | 813346.  | 0.198                       | 0.307 | 10.46      | 9.64  | -0.81*                  | 50.40                                      |                                            |                                                          |                                               |
| 3 OR MORE              | TOTAL         | 2296765.   | 1837100. | 0.802                       | 0.693 | 13.55      | 12.91 | -0.64*                  | 49.60                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:    |               | 2862252.   | 2650446. |                             |       | 12.94      | 11.90 | -1.03*                  | 100.00                                     | -0.34                                      | -0.60                                                    | -0.02                                         |

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|                                                        |       | WEIGHTED N |          | PROPORTION<br>OF POPULATION |       | MEAN SCORE |       | 1980-1972<br>DIFFERENCE | % OF<br>TOTAL<br>CHANGE<br>DUE TO<br>GROUP | TOTAL<br>CHANGE<br>DUE TO<br>POP.<br>SHIFT | TOTAL<br>CHANGE<br>DUE TO<br>SUBGROUP<br>MEAN<br>CHANGES | TOTAL<br>CHANGE<br>DUE TO<br>INTER-<br>ACTION |
|--------------------------------------------------------|-------|------------|----------|-----------------------------|-------|------------|-------|-------------------------|--------------------------------------------|--------------------------------------------|----------------------------------------------------------|-----------------------------------------------|
|                                                        |       | 1972       | 1980     | 1972                        | 1980  | 1972       | 1980  |                         |                                            |                                            |                                                          |                                               |
| BY: PROJECTS/LABS USED IN COURSES THIS YEAR            |       |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| NEVER, SELDOM                                          | TOTAL | 1439303.   | 1455195. | 0.515                       | 0.566 | 12.03      | 10.89 | -1.14*                  | 68.10                                      |                                            |                                                          |                                               |
| OFTEN, FREQ.                                           | TOTAL | 1357758.   | 1117810. | 0.485                       | 0.434 | 14.16      | 13.53 | -0.63*                  | 31.90                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:                                    |       | 2797061.   | 2573005. |                             |       | 13.06      | 12.04 | -1.03*                  | 100.00                                     | -0.11                                      | -0.69                                                    | -0.03                                         |
| BY: ESSAYS USED IN COURSES THIS YEAR                   |       |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| NEVER, SELDOM                                          | TOTAL | 997045.    | 944795.  | 0.356                       | 0.369 | 12.10      | 10.58 | -1.52*                  | 56.20                                      |                                            |                                                          |                                               |
| OFTEN, FREQ.                                           | TOTAL | 1806937.   | 1612411. | 0.644                       | 0.631 | 13.58      | 12.80 | -0.78*                  | 43.80                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:                                    |       | 2803982.   | 2557206. |                             |       | 13.06      | 12.03 | -1.02*                  | 100.00                                     | -0.02                                      | -0.99                                                    | -0.01                                         |
| BY: PROPORTION OF FT TEACHERS WITH ADVANCED DEGREES    |       |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| 0-49%                                                  | TOTAL | 1906576.   | 1349955. | 0.674                       | 0.526 | 12.59      | 11.47 | -1.12*                  | 58.07                                      |                                            |                                                          |                                               |
| 50-100%                                                | TOTAL | 922088.    | 1217193. | 0.326                       | 0.474 | 13.69      | 12.37 | -1.32*                  | 41.93                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:                                    |       | 2828664.   | 2567148. |                             |       | 12.95      | 11.89 | -1.05*                  | 100.00                                     | 0.16                                       | -1.19                                                    | -0.03                                         |
| BY: PROPORTION OF LAST YEAR'S GRADUATES NOW IN COLLEGE |       |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| 0-30%                                                  | TOTAL | 321401.    | 470968.  | 0.113                       | 0.182 | 9.97       | 9.58  | -0.39                   | 26.92                                      |                                            |                                                          |                                               |
| 30-49%                                                 | TOTAL | 1072530.   | 1008366. | 0.378                       | 0.390 | 12.21      | 11.39 | -0.82*                  | 32.08                                      |                                            |                                                          |                                               |
| 50-69%                                                 | TOTAL | 938296.    | 695090.  | 0.331                       | 0.269 | 13.45      | 12.41 | -1.04*                  | 30.55                                      |                                            |                                                          |                                               |
| 70-100%                                                | TOTAL | 502581.    | 413334.  | 0.177                       | 0.160 | 15.46      | 15.07 | -0.39                   | 10.45                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:                                    |       | 2834808.   | 2587758. |                             |       | 12.94      | 11.92 | -1.02*                  | 100.00                                     | -0.29                                      | -0.77                                                    | 0.04                                          |
| BY: HIGH SCHOOL OFFERS ADVANCED PLACEMENT COURSES      |       |            |          |                             |       |            |       |                         |                                            |                                            |                                                          |                                               |
| YES AP                                                 | TOTAL | 815138.    | 1197655. | 0.318                       | 0.466 | 14.00      | 12.78 | -1.22*                  | 39.05                                      |                                            |                                                          |                                               |
| NO AP                                                  | TOTAL | 1746676.   | 1370544. | 0.682                       | 0.534 | 12.51      | 11.15 | -1.36*                  | 60.95                                      |                                            |                                                          |                                               |
| SUBGROUPS COMBINED:                                    |       | 2561814.   | 2568199. |                             |       | 12.99      | 11.91 | -1.08*                  | 100.00                                     | 0.22                                       | -1.32                                                    | 0.02                                          |

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|                                                      |       | <u>WEIGHTED N</u> |          | <u>PROPORTION<br/>OF POPULATION</u> |       | <u>MEAN SCORE</u> |       | <u>1980-1972<br/>DIFFERENCE</u> | <u>% OF<br/>TOTAL<br/>CHANGE<br/>DUE TO<br/>GROUP</u> | <u>TOTAL<br/>CHANGE<br/>DUE TO<br/>POP.<br/>SHIFT</u> | <u>TOTAL<br/>CHANGE<br/>DUE TO<br/>SUBGROUP<br/>MEAN<br/>CHANGES</u> | <u>TOTAL<br/>CHANGE<br/>DUE TO<br/>INTER-<br/>ACTION</u> |
|------------------------------------------------------|-------|-------------------|----------|-------------------------------------|-------|-------------------|-------|---------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------|
|                                                      |       | 1972              | 1980     | 1972                                | 1980  | 1972              | 1980  |                                 |                                                       |                                                       |                                                                      |                                                          |
| BY: SEMESTERS OF FOREIGN LANGUAGE TAKEN SOPH-SR YEAR |       |                   |          |                                     |       |                   |       |                                 |                                                       |                                                       |                                                                      |                                                          |
| 3 OR FEWER                                           | TOTAL | 2092335.          | 2011342. | 0.731                               | 0.759 | 11.65             | 10.71 | -0.94*                          | 72.40                                                 |                                                       |                                                                      |                                                          |
| 4 OR MORE                                            | TOTAL | 769917.           | 639184.  | 0.269                               | 0.241 | 16.43             | 15.65 | -0.78*                          | 27.60                                                 |                                                       |                                                                      |                                                          |
| SUBGROUPS COMBINED:                                  |       | 2862252.          | 2650446. |                                     |       | 12.94             | 11.90 | -1.03*                          | 100.00                                                | -0.13                                                 | -0.90                                                                | -0.00                                                    |
| BY: PARTICIPATE IN ATHLETICS                         |       |                   |          |                                     |       |                   |       |                                 |                                                       |                                                       |                                                                      |                                                          |
| NO                                                   | TOTAL | 1559989.          | 1265014. | 0.552                               | 0.483 | 12.09             | 11.06 | -1.02*                          | 41.73                                                 |                                                       |                                                                      |                                                          |
| YES                                                  | TOTAL | 1267227.          | 1356205. | 0.448                               | 0.517 | 14.13             | 12.02 | -1.31*                          | 58.27                                                 |                                                       |                                                                      |                                                          |
| SUBGROUPS COMBINED:                                  |       | 2827216.          | 2621220. |                                     |       | 13.00             | 11.97 | -1.03*                          | 100.00                                                | 0.14                                                  | -1.15                                                                | -0.02                                                    |
| BY: SCHOOLING MOTHER WANTS FOR STUDENT               |       |                   |          |                                     |       |                   |       |                                 |                                                       |                                                       |                                                                      |                                                          |
| NO 4-YR COL.                                         | TOTAL | 1006432.          | 845980.  | 0.435                               | 0.401 | 10.23             | 9.07  | -1.16*                          | 26.99                                                 |                                                       |                                                                      |                                                          |
| 4-YR COLLEGE                                         | TOTAL | 1308145.          | 1264195. | 0.565                               | 0.599 | 16.37             | 14.64 | -1.72*                          | 73.01                                                 |                                                       |                                                                      |                                                          |
| SUBGROUPS COMBINED:                                  |       | 2314577.          | 2110175. |                                     |       | 13.70             | 12.41 | -1.29*                          | 100.00                                                | 0.21                                                  | -1.48                                                                | -0.02                                                    |

APPENDIX E

Analysis of Covariance Partition  
of Score Change

## Appendix E

### Analysis of Covariance Partition of Score Change

The analysis of covariance model can be written in the following computational form:

$$\alpha = (\bar{Y}_j - \bar{Y}_k) - b_p(\bar{X}_j - \bar{X}_k)$$

where

$\alpha$  = the treatment effect or equivalently the difference between adjusted means.

$b_p$  = pooled within group regression coefficient.

$\bar{Y}_j$  = observed mean on the dependent variable in group j.

$\bar{X}_j$  = observed mean on the covariate in group j.

Now more generally but in terms of the NLS and HSB cohort means we have:

$$\alpha = (\bar{Y}_{72} - \bar{Y}_{80}) - (\hat{\bar{Y}}_{72} - \hat{\bar{Y}}_{80})$$

where  $\hat{\bar{Y}}_{72}$  and  $\hat{\bar{Y}}_{80}$  are the estimated within cohort means where the estimation is from the vector of covariates. In the "step down" procedure used here the  $\hat{\bar{Y}}$ 's are first estimated using the covariate vector based on all the blocks (the full model) then reestimated leaving out the block of interest. The "net" affect of the block left out is the difference between the estimated mean in the reduced model and those in the full model or

$$\alpha_R - \alpha_F = (\hat{\bar{Y}}_{72,R} - \hat{\bar{Y}}_{80,R}) - (\hat{\bar{Y}}_{72,F} - \hat{\bar{Y}}_{80,F})$$

where

$\alpha_R - \alpha_F$  = "net" effect of the block left out. If the difference based on the reduced model is large compared to the full model then the block left out has a relatively strong positive relationship with score decline. That is, it is a potential contributor to score decline. If the "net" effect of a block that is left out is negative then  $\hat{\bar{Y}}_{80,R} > \hat{\bar{Y}}_{72,R}$  indicating that changes in the covariate means in the "left out" block were in the direction of resisting score decline.

Inspection of either the standardized partial regression weights and/or the structure coefficients (i.e., the correlation between variables in a block and the covariate composite score for the block) help to identify which variables in the block contribute the most to the blocks' net effect. This information along with the variables correlation with the "dummy" code for group membership pretty much tell the story.



IMPORTANCE OF INDIVIDUAL DEMOGRAPHIC, SCHOOL, AND STUDENT VARIABLES  
IN EXPLAINING SCORE DECLINES AS INDICATED BY STRUCTURE COEFFICIENTS  
GREATER THAN  $\pm .20^b$  (CORRELATIONS WITH COVARIATE COMPOSITE)

|                                 | VOCABULARY<br>R=.61 | READ<br>R=.58 | MATH<br>R=.69 | $r_{xd}^a$ |
|---------------------------------|---------------------|---------------|---------------|------------|
| <u>DEMOGRAPHICS</u>             |                     |               |               |            |
| WHITE                           | .49                 | .50           | .45           | .07        |
| HIGH SES                        | .48                 | .43           | .42           | .00        |
| SUBURBAN                        | .21                 | ---           | ---           | .04        |
| NORTHEAST                       | .20                 | ---           | ---           | .05        |
| <u>STUDENT SCHOOL BEHAVIORS</u> |                     |               |               |            |
| NUMBER OF HOMEWORK HOURS        | .30                 | .29           | .30           | .11        |
| STUDENT EDUCATIONAL PLANS       | .61                 | .64           | .72           | -.02       |
| NUMBER OF LABS                  | .28                 | .29           | .28           | .06        |
| NUMBER OF ESSAYS                | .26                 | .24           | ---           | .01        |
| SEMESTERS MATH                  | .39                 | .41           | .59           | -.03       |
| SEMESTERS SCIENCE               | .48                 | .48           | .54           | .11        |
| SEMESTERS FOREIGN LANGUAGE      | .62                 | .59           | .54           | .23        |
| ACADEMIC CURRICULUM             | .67                 | .67           | .68           | .08        |
| VOCATIONAL CURRICULUM           | -.41                | -.41          | -.42          | -.03       |
| <u>SCHOOL CHARACTERISTICS</u>   |                     |               |               |            |
| BUILDING CONDITIONS             | .20                 | ---           | ---           | .10        |
| QUALITY OF ACADEMIC INSTITUTION | .31                 | .29           | .26           | .10        |
| REPUTATION                      | .31                 | .29           | .28           | .13        |
| VOCATIONAL COUNSELOR            | -.41                | -.36          | -.32          | -.34       |
| ACADEMIC EMPHASIS               | .41                 | .38           | .32           | .55        |
| NUMBER OF LABS (MEAN)           | .25                 | .24           | .20           | .18        |
| % WHITE TEACHERS                | .31                 | .29           | .26           | .06        |
| % DROPOUTS                      | -.28                | -.24          | -.23          | -.14       |
| % WHITE STUDENTS                | .38                 | .36           | .33           | .06        |
| % ACADEMIC CURRICULUM           | .36                 | .29           | .30           | .04        |
| SCHOOL TYPE                     | .21                 | ---           | ---           | -.02       |
| HOMEWORK (MEAN)                 | .26                 | .24           | .23           | .33        |
| SEMESTERS FOREIGN LANGUAGE      | .33                 | .28           | .23           | .32        |
| <u>HOME EDUCATIONAL SUPPORT</u> |                     |               |               |            |
| FATHERS' EDUCATIONAL LEVEL      | .48                 | .43           | .42           | -.12       |
| MOTHERS' EDUCATIONAL LEVEL      | .43                 | .38           | .36           | -.10       |
| MOTHERS' EDUCATIONAL PLANS      | .56                 | .57           | .55           | -.06       |
| STUDY AIDS                      | .33                 | .28           | .28           | .13        |

<sup>a</sup> $r_{xd}$  is the correlation between a "dummy" code ("1" = 72 cohort;  
"0" = 80 cohort) and a given demographic, school, or student  
variable. For example a positive correlation between the number  
of homework hours and "dummy" code indicates that 1972 seniors on  
average report doing more homework than 1980 seniors.

<sup>b</sup>Variables that are positively (negatively) related to the  
covariate composite for predicting achievement -- vocabulary,  
reading, or mathematics and positively (negatively) related to  
the "dummy" cohort code indicates changes in demographics,  
student behaviors, or school characteristics that contribute to  
the score decline. Variables that are positively related to the  
covariate composite but negatively related to the "dummy" cohort  
code are changing in a direction that resists the score decline.